

AD-A100 527 ARMY ELECTRONICS RESEARCH AND DEVELOPMENT COMMAND WS--ETC F/6 4/2
20401A ASSAULT BREAKER, MISSILE NUMBER 0002, ROUND NUMBER M161.(U)
MAY 81 D C KELLER

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DR 1176
May 1981

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LEVEL II

(12)

METEOROLOGICAL DATA REPORT

20401A Assault Breaker
Missile No. 0002
Round No. MIGI
1 May 1981

by

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AVN 349-9568

JUN 23 1981

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ATMOSPHERIC SCIENCES LABORATORY
WHITE SANDS MISSILE RANGE, NEW MEXICO

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UNITED STATES ARMY ELECTRONICS COMMAND

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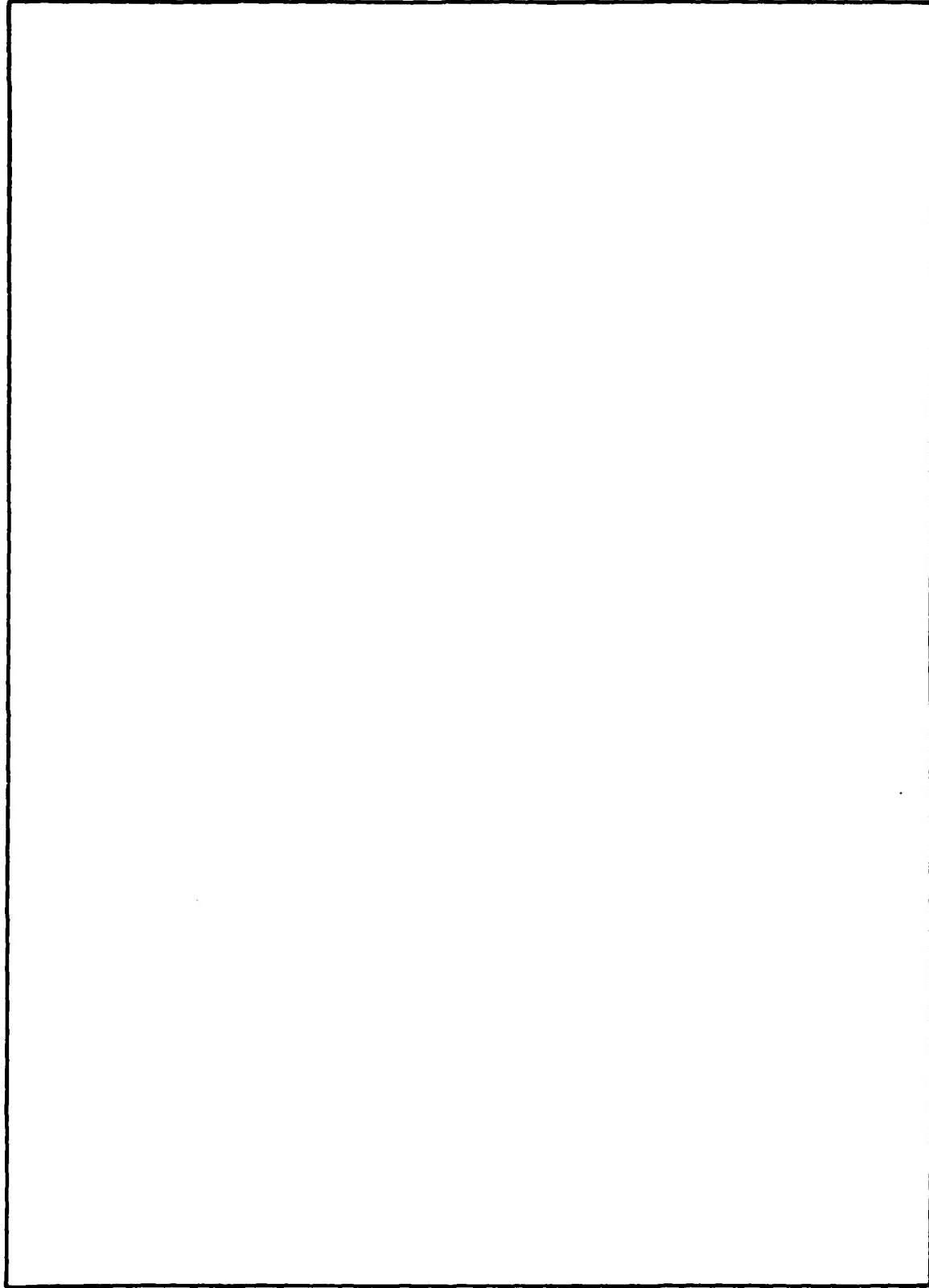
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19. KEY WORDS (Continue on reverse side if necessary and identify by block number)		
20. ABSTRACT (Continue on reverse side if necessary and identify by block number)	Meteorological data gathered for the launching of the 20401A Assault Breaker, Missile Number 0002, Round Number M1G1 presented in tabular form.	

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INTRODUCTION

20401A Assault Breaker, Missile Number 0002, Round Number M1G1, was launched from LC-33, White Sands Missile Range (WSMR), New Mexico, at 0918 MDT, on 01 May 1981. The scheduled launch time was 0915 MDT.

DISCUSSION

Meteorological data were recorded and reduced by the White Sands Meteorological Team, Atmospheric Sciences Laboratory (ASL), White Sands Missile Range, New Mexico. The data were obtained by the following methods:

1. Observations

a. Surface

(1) Standard surface observations to include pressure, temperature ($^{\circ}\text{C}$), relative humidity, dew point ($^{\circ}\text{C}$), density (gm/m^3), wind direction and speed, and cloud cover were made at the LC-33 Met Site at T-0 minutes.

(2) Anemometer data were provided from existing pole-mounted and tower-mounted anemometers at LC-33. Monitor of wind speed and direction from one anemometer was also provided in the launch control room.

b. Upper Air

(1) Low level wind data were obtained from Single Theodoliteibal observations at:

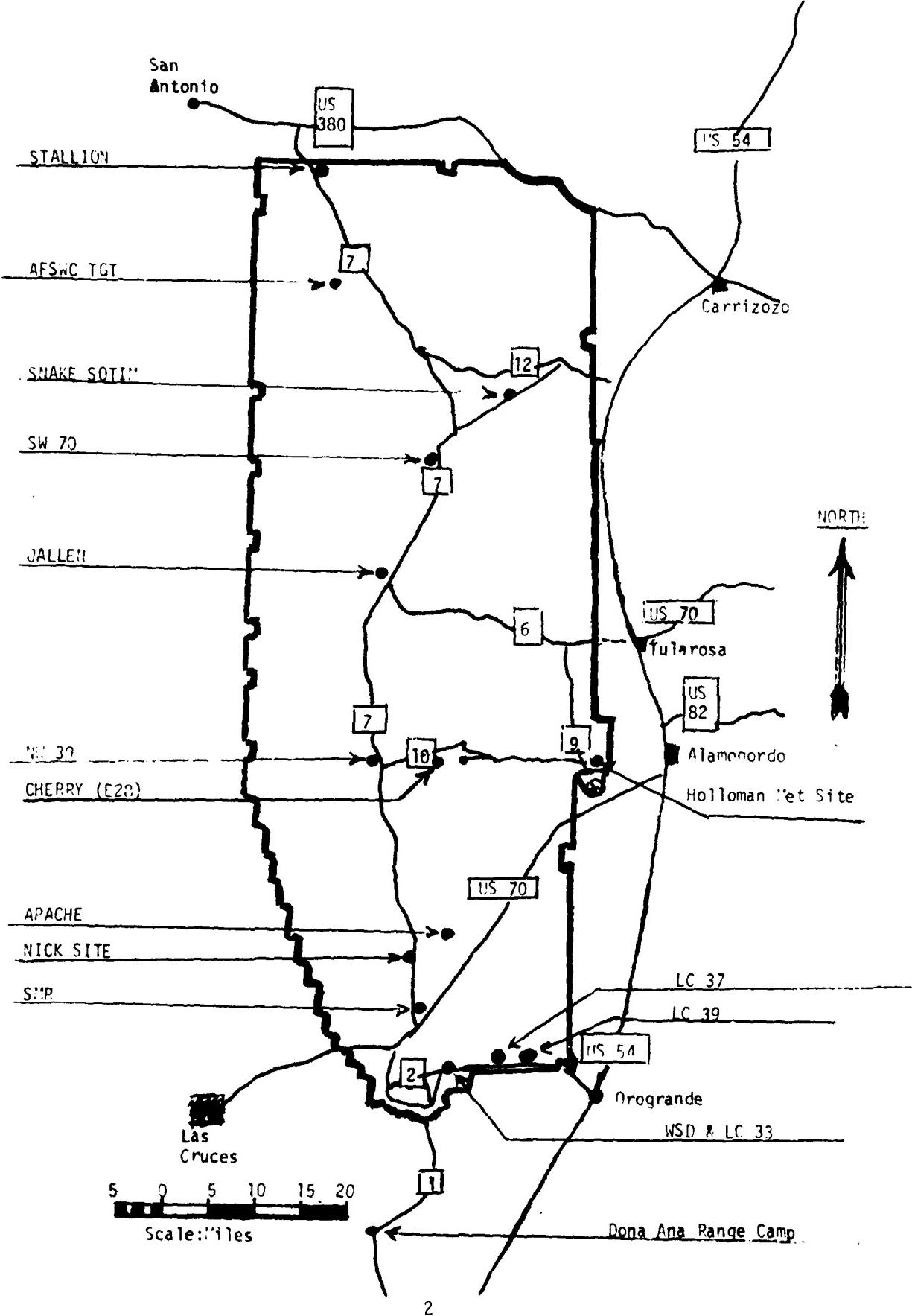
SITE AND ALTITUDE

LC-33 2760 Meters

(2) Air structure data (rawinsonde) were collected at the following Met Sites:

SITE AND TIME

JAL	0645 MDT
LC-37	0815 MDT
HM S	0815 MDT
WSD	0918 MDT
JAL	0925 MDT



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TABLE 1. Surface Observations taken at 0918 MDT,
1 May 1981, at LC-33, 20401A Assault
Breaker, Missile Number 0002, Round
Number M1G1.

ELATATION	3983	FT/MSL
PRESSURE	881.1	"
TEMPERATURE	20.7	"
RELATIVE HUMIDITY	56	%
DEW POINT	11.7	"
DENSITY	1038	SLP/MM
WIND SPEED	03	MPS
WIND DIRECTION	159	Degrees
CLOUD COVER	3/CU/6000 1/AC/12000	1st Layer AMT/TYPE/HGT 2nd Layer AMT/TYPE/HGT

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TABLE 2 LC-33 FIXED POLE ANEMOMETER MEASUREMENTS
20401A Assault Breaker, Missile No. 0002, Round No. M1G1,
1 May 1981, at 0918 MDT.

POLE #1			POLE #2			POLE #3		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	157	03	T-30	141	02	T-30	171	03
T-20	157	04	T-20	147	02	T-20	153	04
T-10	157	03	T-10	148	02	T-10	139	04
T0.0	156	04	T0.0	149	02	T0.0	135	04
T+10	146	04	T+10	147	02	T+10	137	03

TABLE 3 LC-33 METEOROLOGICAL TOWER ANEMOMETER MEASUREMENTS (102 FT TOWER)

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	165	03	T-30	162	04
T-20	160	03	T-20	162	04
T-10	159	03	T-10	163	05
T0.0	159	03	T0.0	166	04
T+10	162	03	T+10	157	04

LEVEL #1, 12 FEET X484,982.64, Y185,057.73, H3983.00 (base)			LEVEL #2, 102 FEET X484,982.64, Y185,057.73, H3983.00 (base)		
T-TIME SEC	DIR DEG	SPEED KTS	T-TIME SEC	DIR DEG	SPEED KTS
T-30	173	04	T-30	171	05
T-20	173	04	T-20	171	05
T-10	176	06	T-10	171	05
T0.0	180	05	T0.0	171	04
T+10	180	04	T+10	168	03

PROJECT SURFACE OBSERVATION

TABLE 4

DATE 01 MONTH MAY YEAR 1981

TIME M D I	PRESSURE mb	TEMPERATURE °F	DEW POINT °C	RELATIVE HUMIDITY %	DENSITY gm/m ³	MIND SPEED kts	CHARACTER kts	VISIBIL- ITY
					DIRECTION deg	DIRECTION deg		
0845	876.0	23.0	08.9	41	1.024	.040	.06	35
0918	876.4	24.0	09.8	40	1.019	.010	.10	36
0945	876.7	23.8	09.4	40	1.021	.040	.06	35

CLOUDS

OBSTRUCTIONS TO VISIBILITY	AMT	TYPE	HGT	1st LAYER		2nd LAYER		3rd LAYER		REMARKS
				AMT	TYPE	HGT	AMT	TYPE	HGT	
	1	CU	5,000	1	AC	14,000	1	CS	23,000	
	2	CU	5,000	3	AC	14,000				
	1	CU	5,000	3	AC	14,000				

PSYCHROMETRIC COMPUTATION

TIME:	0845	0915	0945
DRY BULB TEMP.	23.0	24.0	23.8
WET BULB TEMP.	14.3	15.1	14.8
WET BULB DEPR.	.08.7	.08.9	.09.0
DEW POINT	.08.9	.09.8	.09.4
RELATIVE HUMID.	41	40	40

PILOT BASED ON THE RUMBLE SYSTEM

TABLE II

RELEASED FROM LC-33 E&A

01 May 1981

3908 A.

COORDINATES (WSTM) /: 485,135,76 , 185,919,24 : 3988,5/

185,919.24

3988.5 /

NOTE: WIND DIRECTIONS ARE REFERENCED TO

ALL FIGURES ARE METRIC AGL X OR FELT AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED FTS
sfc	156	03
60	MISG	MISG
120	110	04
180	104	04
240	092	07
300	123	07
360	102	07
420	092	10
480	106	08
540	100	10
600	107	12
660	101	13
720	008	13
780	091	14
840	101	14
900	096	16
960	088	18
1020	088	16
1080	090	18
1140	093	15
1200	095	16
1260	095	21
1320	100	22
1380	103	20
1440	105	19
1500	110	18
1560	105	20
1620	104	18
1680	103	19
1740	099	16
1800	102	14

WEIGHT AGL	DIRECTION DEGREES	FEET M.
1860	107	13
1920	124	11
1980	121	10
2040	136	12
2100	121	09
2160	116	13
2220	110	10
2280	122	07
2340	123	07
2400	115	09
2460	139	07
2520	147	08
2580	130	09
2640	134	06
2700	127	08
2760	125	09

PILOT BALLOON MEASURED WIND DATA

TABLE 6

RELEASED FROM LC-33 E&A

DATE 01 MAY 1981

TIME 0918 MUT

COORDINATES (WSTM) 485,135.76

185,919.24

3988.57

NOTE: WIND DIRECTIONS ARE REFERENCED TO

HEIGHTS ARE METERS AGL X OR FEET AGL

HEIGHT AGL	DIRECTION DEGREES	SPEED FTS	HEIGHT AGL	DIRECTION DEGREES	SPEED FTS	HEIGHT AGL	DIRECTION DEGREES	SPEED FTS
sfc	159	03	1860	110	11			
60	MISG	MISG	1920	117	11			
120	120	02	1980	130	09			
180	161	03	2040	120	09			
240	161	05	2100	125	10			
300	154	06	2160	113	11			
360	153	04	2220	109	09			
420	110	06	2280	110	13			
480	109	06	2340	109	11			
540	099	08	2400	134	11			
600	115	11	2460	143	08			
660	098	13	2520	130	10			
720	082	08	2580	142	08			
780	104	11	2640	142	09			
840	095	13	2700	143	07			
900	092	14	2760	127	08			
960	094	14						
1020	088	14						
1080	096	19						
1140	097	22						
1200	101	20						
1260	099	21						
1320	096	23						
1380	097	22						
1440	100	21						
1500	102	22						
1560	101	19						
1620	105	19						
1680	113	16						
1740	120	16						
1800	109	12						

AIMING COMPUTER MET MESSAGE
1 May 1981

JAL 0645 MDT
METCM1332065
010680124872
00018003 28960872
01044019 29240862
02052029 29280837
03071013 28950799
04159008 28610753
05258009 28300709
06315013 27910667
07250012 27510628
08228018 27090590
09236022 26690553
10239023 26330519
11296018 25950486
12310022 25320440
13360020 24800384

STATION ALTITUDE 4051.70 FEET MSL
1 MAY 81
ASCENSION NO. 27

SIGNIFICANT LEVEL DATA
1210050027
JALLEN
TABLE 8

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
872.0	4051.0	15.2	5.7	53.0
861.8	4380.7	18.6	8.3	51.0
850.0	4769.9	10.2	6.5	50.0
774.8	7159.5	13.0	5.7	61.0
716.0	9528.0	9.4	2.9	64.0
700.0	10143.3	8.0	.7	60.0
632.4	12868.9	1.7	-4.6	63.0
595.6	14448.0	-2.3	-4.0	68.0
579.0	15184.1	-4.5	-5.3	94.0
511.4	18362.9	-11.2	-12.4	91.0
500.0	18931.4	-12.2	-17.4	65.0
470.4	20455.7	-16.0	-21.4	63.0
459.0	21061.1	-18.3	-29.1	38.0
415.8	23467.7	-22.8	-32.6	40.0
400.0	24401.2	-23.5	-36.5	29.0
393.8	24777.0	-23.7	-35.7	32.0
324.8	29314.0	-34.0	-46.1	28.0
304.8	30768.5	-37.6	-49.3	28.0

STATION ALTITUDE 4051.00 FEET MSL
 1 MAY 81 0645 HRS MDT
 ASCENSION NO. 27

UPPER AIR DATA
 1210030027
 JALLEN
 TABLE 9

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEMPPOINT PERCENT	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
4051.0	874.0	15.2	5.7	53.0	1049.3	662.9	10.0	3.1	1.000276
4500.0	858.2	18.8	8.4	50.7	1019.1	667.3	26.5	6.8	1.000276
5000.0	843.0	18.6	8.3	51.0	1001.5	667.1	31.6	11.2	1.000272
5500.0	828.1	17.5	7.8	53.1	987.9	665.7	35.8	15.6	1.000268
6000.0	813.4	16.3	7.3	55.2	974.5	664.3	35.8	17.5	1.000263
6500.0	799.0	15.1	6.7	57.3	961.3	662.9	41.3	13.0	1.000259
7000.0	784.8	13.9	6.1	59.5	948.3	661.5	51.8	9.8	1.000255
7500.0	770.8	12.8	5.5	61.2	935.1	660.2	67.7	8.3	1.000250
8000.0	756.9	11.9	4.9	61.9	921.0	659.2	80.3	8.5	1.000246
8500.0	743.3	11.1	4.2	62.6	907.1	658.2	87.0	9.5	1.000241
9000.0	729.9	10.3	3.6	63.3	893.4	657.2	103.9	8.8	1.000236
9500.0	716.7	9.4	3.0	64.0	880.0	656.2	126.9	8.6	1.000232
10000.0	703.7	8.3	1.2	60.9	867.8	654.8	159.4	10.1	1.000225
10500.0	690.8	7.2	0.0	60.4	855.5	653.4	174.9	12.5	1.000220
11000.0	678.0	6.0	-9	60.9	843.4	652.0	178.5	13.3	1.000216
11500.0	665.5	4.9	-1.9	61.5	831.4	650.6	175.2	12.9	1.000211
12000.0	653.2	3.7	-2.9	62.0	819.6	649.2	165.7	12.0	1.000207
12500.0	641.2	2.6	-3.8	62.6	807.9	647.7	154.3	11.7	1.000203
13000.0	629.3	1.4	-4.5	65.1	796.4	646.3	142.7	11.9	1.000200
13500.0	617.4	.1	-4.2	73.0	785.0	644.9	135.5	13.3	1.000198
14000.0	605.8	-1.2	-4.0	80.9	773.7	643.4	130.5	15.0	1.000196
14500.0	594.4	-2.5	-4.1	88.4	762.8	641.9	128.8	17.1	1.000193
15000.0	583.1	-3.9	-5.0	92.5	752.5	640.1	128.1	19.0	1.000190
15500.0	571.9	-5.2	-6.0	93.7	741.5	638.6	129.7	20.2	1.000186
16000.0	560.8	-6.2	-7.1	93.2	730.2	637.3	131.1	21.3	1.000182
16500.0	550.0	-7.3	-8.2	92.8	719.0	636.0	132.5	22.2	1.000178
17000.0	539.4	-8.3	-9.3	92.3	708.0	634.6	132.6	22.9	1.000174
17500.0	528.9	-9.4	-10.5	91.0	697.2	633.3	132.0	23.4	1.000170
18000.0	517.7	-10.4	-11.6	91.3	686.5	632.0	134.0	22.5	1.000167
18500.0	508.6	-11.4	-13.5	84.7	676.0	630.7	139.8	21.2	1.000163
19000.0	499.6	-12.4	-17.6	64.9	665.3	629.5	151.6	19.2	1.000157
19500.0	488.7	-13.6	-18.9	64.3	655.3	627.9	162.0	18.8	1.000154
20000.0	479.1	-14.9	-20.2	63.6	645.5	626.4	167.3	19.8	1.000151
20500.0	469.6	-16.2	-21.9	61.2	636.0	624.8	170.3	21.4	1.000148
21000.0	460.1	-18.1	-20.2	40.5	628.1	622.4	172.2	23.3	1.000143
21500.0	450.8	-19.1	-20.7	38.4	617.9	621.1	176.7	23.4	1.000141
22000.0	441.6	-20.1	-30.4	38.0	607.6	619.9	178.9	22.9	1.000138
22500.0	432.7	-21.0	-31.2	39.2	597.5	618.8	175.8	21.1	1.000136
23000.0	423.9	-21.9	-31.9	39.6	587.5	617.0	176.6	19.8	1.000133
23500.0	415.2	-22.6	-32.7	39.6	577.7	616.5	160.7	18.7	1.000131

STATION ALTITUDE 4051.00 FEET MSL
 1 MAY 81 0645 HRS MDT
 ASCENSION NO. 27

UPPER AIR DATA
 121003Z0027
 JALLEN
 TABLE 9 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
24000.0	406.7	-23.2	-34.7	33.7	566.7	616.0	194.7	17.9
24500.0	398.4	-23.6	-36.3	29.8	555.9	615.6	204.7	17.9
25000.0	390.1	-24.2	-36.2	31.8	545.7	614.8	206.6	17.8
25500.0	381.9	-25.3	-37.3	31.4	536.7	613.3	204.2	18.8
26000.0	373.9	-26.5	-38.5	30.9	527.9	611.9	200.0	20.6
26500.0	366.0	-27.6	-39.6	30.5	519.2	610.5	203.3	23.5
27000.0	358.3	-28.7	-40.8	30.0	510.7	609.1	205.0	26.1
27500.0	350.0	-29.9	-41.9	29.6	502.3	607.7	203.5	23.3
28000.0	343.4	-31.0	-43.1	29.2	494.0	606.3	202.2	22.7
28500.0	336.2	-32.2	-44.2	28.7	485.9	604.8	208.1	31.6
29000.0	329.2	-33.3	-45.4	28.3	478.0	603.4	210.7	40.5
29500.0	322.2	-34.5	-46.5	28.0	470.2	601.9	211.2	49.1
30000.0	315.2	-35.7	-47.6	28.0	462.4	600.3		1.000105
30500.0	306.4	-36.9	-48.7	28.0	454.8	598.8		1.000104
								1.000102

STATION ALTITUDE 4051.00 FEET MSL
1 MAY 81
ASCENSION NO. 29645 HKS MUT

MANDATORY LEVELS
1210030027
JALLEN
TABLE 10

GEODETIC COORDINATES
33°16'12" LAT DEG
106°49'51" LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE			REL.HUM. PERCENT	WIND DATA	
		AIR DEGREES	DEWPONT CENTIGRADE	DIRECTION DEGREES (TN)		SPEED KNOTS	
850.0	4767.	19.2	8.5	50.	29.8	9.2	
800.0	6466.	15.1	6.7	57.	40.8	15.3	
750.0	8250.	11.5	4.6	62.	83.9	9.0	
700.0	10134.	8.0	.7	60.	166.1	10.9	
650.0	12126.	3.4	-3.1	62.	162.9	11.9	
600.0	14219.	-1.6	-4.0	85.	129.6	16.1	
550.0	16490.	-7.3	-8.2	93.	132.5	22.2	
500.0	18906.	-12.2	-17.4	65.	149.7	19.5	
450.0	21515.	-19.2	-29.8	38.	177.1	23.4	
400.0	24362.	-23.5	-36.5	29.	204.3	17.9	
350.0	27528.	-30.0	-42.0	30.	202.9	23.0	

STATION ALTITUDE 4051.37 FEET MSL
 1 MAY 0815 HRS MDT
 ASCENSION NO. 63

SIGNIFICANT LEVEL DATA
 1210180000Z
 LC-37
 TABLE 11

GEODETIC COORDINATES
 32°40'17.5" LAT DEG
 106°31'32" LON DEG

PRESSURE GEOMETRIC MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEWPOINT DEGREES CENTIGRADE	REL. HUM. PERCENT
878.9	4051.4	18.5	62.0
876.2	4137.9	16.7	60.0
869.7	4639.1	18.0	56.0
850.0	4990.7	17.1	56.0
828.2	5717.5	15.5	58.0
809.0	6371.1	14.8	56.0
798.4	6738.2	15.0	57.0
742.2	8752.3	9.7	70.0
700.0	10341.9	6.2	65.0
688.0	10807.9	5.6	73.0
652.2	12238.4	2.5	70.0
625.8	13134.4	.8	61.0
609.0	14051.7	-.8	64.0
575.2	15541.3	-4.7	63.0
550.4	16678.3	-6.7	61.0
525.8	17846.9	-9.6	60.0
500.0	19117.9	-12.6	31.0
477.8	20252.2	-15.4	36.0
462.2	21076.1	-15.9	25.0
400.0	24603.2	-24.0	19.0
369.2	2671.6	-29.3	19.0
345.5	28061.5	-31.3	32.0
335.0	28779.4	-32.5	30.0
300.0	31308.8	-38.4	28.0
259.3	34552.4	-46.6	
250.0	35347.6	-48.3	

STATION ALTITUDE 4051.37 FEET MSL
 1 MAY 61 0315 HRS MDT
 ASCENSION NO. 63

UPPER AIR DATA
 1210180063
 LC-37
 TABLE 12

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	SOUND METER KNOTS	DENSITY GM/CURIC DEGREES	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION	
								WIND INDEX	WIND INDEX
4051.4	870.9	18.5	11.1	62.0	1043.8	667.2	45.0	6.0	1.000292
4500.0	965.0	17.6	9.1	57.1	1031.0	666.0	66.8	6.6	1.000281
5000.0	849.7	17.1	8.2	56.0	1015.0	665.5	84.6	8.1	1.000275
5500.0	834.7	16.0	7.6	57.4	1000.9	664.9	96.3	10.1	1.000270
6000.0	819.8	15.2	6.8	57.1	986.0	663.0	102.1	12.7	1.000265
6500.0	805.3	14.9	6.3	56.4	969.6	662.6	102.6	16.0	1.000260
7000.0	790.9	14.3	6.3	58.7	954.0	662.0	103.1	18.0	1.000257
7500.0	776.7	13.0	5.9	61.9	941.3	660.5	103.6	19.2	1.000253
8000.0	762.7	11.7	5.4	65.1	928.7	659.0	102.6	18.5	1.000249
8500.0	749.0	10.4	4.8	68.4	916.3	657.4	102.3	17.5	1.000245
9000.0	735.5	9.2	3.8	69.2	903.8	655.9	103.6	15.1	1.000240
9500.0	722.0	8.1	2.4	67.6	891.1	655.9	106.4	12.7	1.000233
10000.0	708.9	7.0	1.1	66.1	878.5	653.2	117.4	10.3	1.000228
10500.0	695.9	6.0	.5	67.7	865.5	652.0	127.4	8.7	1.000224
11000.0	683.1	5.2	.7	72.6	851.9	651.1	135.0	7.7	1.000221
11500.0	670.4	4.1	-.6	71.5	839.6	649.8	134.1	7.3	1.000216
12000.0	656.5	3.0	-1.8	70.5	827.6	648.4	128.3	8.1	1.000211
12500.0	643.8	2.1	-3.2	67.9	815.1	647.2	121.3	10.2	1.000206
13000.0	633.7	1.3	-4.8	63.7	802.3	646.2	117.6	13.6	1.000200
13500.0	621.9	.4	-6.0	61.7	790.0	645.1	116.9	17.0	1.000196
14000.0	610.2	-.7	-6.7	63.8	778.4	643.8	119.9	19.6	1.000192
14500.0	598.6	-2.0	-7.9	63.7	767.4	642.2	122.8	21.6	1.000188
15000.0	587.3	-3.3	-9.2	63.4	756.6	640.6	125.8	23.0	1.000184
15500.0	576.1	-4.6	-10.5	63.0	746.0	639.0	129.7	23.0	1.000181
16000.0	565.1	-5.5	-11.6	62.2	734.2	637.9	134.1	22.6	1.000177
16500.0	554.2	-6.4	-12.6	61.3	722.6	636.8	138.3	19.6	1.000173
17000.0	542.5	-7.5	-13.8	60.7	711.7	635.4	143.4	17.0	1.000170
17500.0	530.0	-8.7	-15.0	60.3	701.3	633.9	149.0	15.1	1.000167
18000.0	522.6	-10.0	-16.9	56.5	691.0	632.4	156.8	14.2	1.000163
18500.0	512.4	-11.1	-20.7	45.1	680.7	630.9	171.0	14.9	1.000158
19000.0	502.3	-12.3	-25.0	33.0	670.5	629.4	160.0	17.2	1.000154
19500.0	492.4	-13.5	-26.4	32.7	660.4	627.9	165.4	20.2	1.000151
20000.0	482.6	-14.8	-26.8	34.9	650.4	626.4	164.4	24.1	1.000149
20500.0	472.1	-15.6	-28.2	32.7	639.4	625.4	183.1	27.0	1.000146
21000.0	463.6	-15.9	-30.9	26.0	627.5	625.0	161.4	29.2	1.000142
21500.0	454.2	-16.9	-32.5	24.3	617.3	623.8	181.5	29.0	1.000140
22000.0	445.0	-18.0	-31.8	23.4	607.5	624.4	182.1	28.3	1.000137
22500.0	436.0	-19.2	-35.2	22.6	597.9	620.9	183.5	27.1	1.000135
23000.0	427.2	-20.3	-36.5	21.7	588.4	619.5	169.0	26.1	1.000133
23500.0	418.5	-21.5	-37.9	20.9	579.1	618.1	165.4	25.5	1.000130

STATION ALTITUDE 4051.37 FEET MSL
1 MAY 81 0015 HRS MDT
ASCENSION NO. 63

UPPER AIR DATA
1210130000J
LC-37

TABLE 12 CON't

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	WIND DATA DIRECTION DEGREES(TD)	SPEED KNOTS	INPUT OF REFRACTION
				GM/CURRIC METER	KNOTS	
24000.0	410.0	-22.6	-39.3	20.0	570.0	1.000128
24500.0	401.7	-23.8	-40.7	19.2	561.0	1.000126
25000.0	393.4	-25.1	-41.9	19.0	552.3	1.000124
25500.0	385.2	-26.4	-43.0	19.0	543.8	1.000122
26000.0	377.2	-27.8	-44.2	19.0	535.4	1.000120
26500.0	369.3	-29.1	-45.3	19.0	527.1	1.000118
27000.0	361.5	-29.9	-44.3	22.7	517.6	1.000116
27500.0	353.9	-30.5	-43.3	27.1	508.1	1.000114
28000.0	346.4	-31.2	-42.5	31.5	498.7	1.000112
28500.0	339.0	-32.0	-43.5	30.8	489.8	1.000110
29000.0	331.8	-33.0	-44.6	29.8	481.3	1.000108
29500.0	324.6	-34.2	-45.8	29.4	473.2	1.000106
30000.0	317.6	-35.3	-46.9	29.0	465.3	1.000104
30500.0	310.8	-36.5	-48.1	28.6	457.5	1.000102
31000.0	304.1	-37.7	-49.3	28.2	449.8	1.000101
31500.0	297.4	-38.9	-50.9	26.3**	442.3	1.000099
32000.0	290.8	-40.1	-53.5	22.0**	434.8	1.000097
32500.0	284.4	-41.4	-56.4	17.7**	427.5	1.000095
33000.0	278.6	-42.7	-59.6	13.4**	420.2	1.000094
33500.0	271.9	-43.9	-63.6	9.1**	413.2	1.000092
34000.0	265.8	-45.2	-69.2	4.8**	406.2	1.000091
34500.0	259.9	-46.5	-84.8	.5**	399.4	1.000089
35000.0	254.0	-47.6			392.3	1.000087

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.37 FEET MSL
 1 MAY 01 0815 HRS NDT
 ASSEMBLY NO. 63

MANDATORY LEVELS
 1210180003
 LC-37

TABLE 13

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES CENTIGRAVE	AIR DEPOINT CENTIGRAVE	KEL.HUM. PERCENT	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4987.	17.1	8.3	50.	84.4	0.1
800.0	6677.	15.0	6.5	57.	102.7	17.2
750.0	8458.	10.5	4.6	68.	102.2	17.7
700.0	10332.	6.2	*.1	65.	124.9	9.1
650.0	12315.	2.4	-2.7	69.	125.4	9.4
600.0	14425.	-1.8	-7.8	64.	122.3	21.5
550.0	16675.	-6.7	-13.0	61.	140.2	16.6
500.0	19091.	-12.6	-26.2	31.	181.5	17.8
450.0	21704.	-17.4	-33.1	24.	161.7	28.7
400.0	24562.	-24.0	-41.0	19.	191.0	22.4
350.0	27709.	-30.9	-42.9	29.		
300.0	31246.	-38.4	-50.0	28.		
250.0	35270.	-46.3				

GEODETIC COORDINATES
 32.40175 LAT DEG
 106.31232 LON DEG

STATION ALTITUDE 4051.00 FEET MSL
1 MAY 81 0815 HRS ADT
ASCENSION NO. 28

SIGNIFICANT LEVEL DATA
121005Z0028
JAILLEN
TABLE 14

GEODETIC COORDINATES
33.16712 LAT UEG
106.49511 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
875.9	4051.0	20.8	10.3	51.0
850.0	4900.3	18.2	8.7	54.0
807.6	6333.5	15.0	7.1	59.0
798.0	6666.5	15.0	6.6	57.0
768.2	7722.1	12.7	5.4	61.0
700.0	10263.8	6.9	2.0	71.0
665.6	11620.1	3.9	2.6	91.0
657.0	11967.9	3.4	•6	82.0
647.8	12344.3	2.9	-1.6	72.0
595.8	14554.6	-2.0	-5.0	80.0
587.2	14934.9	-2.4	-5.4	80.0
561.8	16084.2	-5.3	-8.5	76.0
520.6	18n37.6	-9.3	-14.8	64.0
501.0	19060.5	-11.5	-18.1	58.0
481.6	20056.0	-13.0	-21.9	47.0
473.2	20444.1	-14.3	-24.4	42.0
465.6	20847.7	-14.8	-27.8	32.0
458.0	21257.4	-15.0	-29.4	28.0
406.8	24165.4	-22.3	-33.2	36.0
400.0	24573.2	-22.1	-33.3	35.0
358.6	27180.1	-29.2	-40.6	32.0
345.0	28085.3	-31.4	-42.5	32.0
325.8	29413.4	-33.8	-44.7	32.0

STATION ALTITUDE 4051.00 FEET MSL
1 MAY 81 ASCENSION NO. 2815 HRS MDT

UPPER AIR DATA
1210030028
JALLEN
TABLE 15

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (IN) DATA	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.0	875.9	20.8	10.3	51.0	1032.4	669.7	360.0	9.9
4500.0	862.1	19.4	9.5	52.6	1021.2	668.1	27.6	9.1
5000.0	847.0	18.0	8.6	54.3	1008.4	666.4	56.2	10.7
5500.0	832.0	16.9	8.1	56.1	994.5	665.1	74.0	14.2
6000.0	817.3	15.7	7.5	57.8	980.8	663.8	64.4	17.9
6500.0	802.8	15.0	6.8	59.8	966.0	662.9	92.6	19.8
7000.0	788.5	14.3	6.2	58.3	951.3	662.0	97.9	19.9
7500.0	774.4	13.2	5.6	60.2	937.9	660.7	101.2	16.4
8000.0	760.4	12.1	5.0	62.1	924.8	659.4	99.8	12.4
8500.0	746.6	10.9	4.4	64.1	911.7	658.0	88.7	8.0
9000.0	733.1	9.8	3.8	66.0	898.9	656.7	65.7	7.8
9500.0	719.8	8.6	3.1	68.0	886.3	655.3	86.5	8.4
10000.0	706.8	7.5	2.4	70.0	873.9	653.9	91.7	8.4
10500.0	693.9	6.4	2.2	74.5	861.4	652.6	97.6	8.1
11000.0	681.1	5.3	2.4	81.9	848.8	651.4	111.8	6.5
11500.0	668.6	4.2	2.6	89.2	836.4	650.1	134.9	5.9
12000.0	655.2	3.4	4	91.1	823.7	649.0	159.9	7.3
12500.0	644.0	2.6	-1.9	72.6	811.2	647.9	173.0	8.6
13000.0	631.9	1.4	-2.6	74.4	799.3	646.5	181.3	9.6
13500.0	620.1	.3	-3.4	76.2	787.5	645.2	171.0	10.3
14000.0	606.4	-8	-4.1	78.0	776.0	643.9	159.7	11.6
14500.0	597.0	-1.9	-4.9	79.8	764.6	642.5	150.0	15.4
15000.0	585.7	-2.6	-5.5	79.9	752.1	641.7	145.9	18.6
15500.0	574.6	-3.8	-6.9	79.0	741.4	640.1	146.5	20.8
16000.0	563.6	-5.1	-8.3	78.1	730.9	638.5	148.0	21.9
16500.0	552.8	-6.2	-9.8	75.0	719.8	637.2	150.2	22.2
17000.0	542.1	-7.2	-11.4	71.4	708.8	635.9	153.0	22.0
17500.0	531.6	-8.2	-13.1	67.9	697.9	634.6	157.3	21.8
18000.0	521.4	-9.2	-14.7	64.3	687.2	633.4	160.3	21.7
18500.0	511.2	-10.3	-16.3	61.3	676.6	632.0	162.0	22.7
19000.0	501.2	-11.4	-17.9	58.4	666.2	630.7	162.4	24.1
19500.0	491.3	-12.2	-19.7	53.1	655.2	629.7	166.1	25.5
20000.0	481.7	-12.9	-21.7	47.6	644.2	628.7	169.0	26.9
20500.0	472.1	-14.4	-24.8	40.6	635.2	626.9	172.3	27.4
21000.0	462.8	-14.9	-29.3	30.5	623.9	620.2	174.0	27.8
21500.0	453.5	-15.6	-29.6	28.7	613.2	625.3	171.2	26.2
22000.0	444.3	-16.9	-30.3	30.0	603.7	623.8	160.9	24.3
22500.0	435.4	-18.1	-30.9	31.4	594.5	622.3	160.2	21.8
23000.0	426.6	-19.4	-31.6	32.8	585.4	620.7	157.2	20.2
23500.0	418.0	-20.6	-32.3	34.8	576.0	619.3	157.9	19.3

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

STATION ALTITUDE 4051.00 FFEI MSL
 1 MAY 81 0815 HRS MDT
 ASCENSION NO. 28

UPPER AIR DATA
 121003ZB
 JALLFN
 TABLE 15 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	REL.HUM. PERCENT	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	INFLUX OF REFRACTION
	MILLIBARS	DEGREES CENTIGRADE	PERCENT	KNOTS	DIRECTIONS DEGREES (TN)	
4000.0	409.6	-21.9	35.5	567.6	163.0	17.7
24500.0	401.2	-22.1	35.3	556.6	175.0	15.8
25000.0	392.9	-23.5	34.5	547.6	186.8	14.8
25500.0	384.8	-24.6	35.9	539.2	202.8	15.0
26000.0	376.8	-26.0	37.3	530.9	210.2	18.1
26500.0	369.0	-27.3	38.7	522.6	211.2	22.8
27000.0	361.3	-28.7	40.1	514.8	212.2	27.9
27500.0	353.7	-30.0	41.3	506.7	213.0	33.1
28000.0	346.3	-31.2	42.4	498.5	211.7	36.3
28500.0	338.9	-32.1	43.2	489.8	604.8	1.000110
29000.0	331.7	-33.1	44.0	481.2	603.7	1.000108

GEOGRAPHIC COORDINATES
 53.16712 LAT DEG
 106.49511 LON DEG

STATION ALTITUDE 4051.00 FEET MSL
 1 MAY 81
 ASCENSION NO. 28

MANDATORY LEVELS
 1210030020
 JALLEN

TABLE 16

PRESSURE	GEOPOTENTIAL	TEMPERATURE	REL.HUM.	WIND DATA
MILLIBARS	FEET	AIR DEGREES CENTIGRADE	PERCENT	DIRECTION DEGREES (TN) SPEED KNOTS
450.0	4897.	18.2	84.	51.2 10.2
800.0	6592.	15.0	67.	94.0 20.2
750.0	8376.	11.2	46.	92.4 9.1
700.0	10254.	6.9	2.0	91.3 8.4
650.0	12241.	3.0	-1.1	74. 8.2
600.0	14355.	-1.6	-4.7	168.1 14.3
550.0	16611.	-6.4	-10.2	152.1 22.2
500.0	19035.	-11.5	-18.1	151.0 24.3
450.0	21663.	-16.1	-29.9	163.1 25.6
400.0	24534.	-22.1	-33.3	169.9 15.6
350.0	27701.	-30.6	-41.8	174.4 34.9
				212.6

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

STATION ALTITUDE: 4126.59 FEET MSL
 1 MAY 81 0815 HRS MDT
 ASCENSION NO. 77

SIGNIFICANT LEVEL DATA
 1210010077
 HOLLOWMAN
 TABLE 17

GEOGRAPHIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT
875.6	4126.6	18.9	8.6	51.0
865.8	4444.7	19.7	8.1	47.0
850.0	4966.0	19.7	8.1	47.0
759.2	8127.7	13.3	3.4	51.0
740.6	8812.0	11.7	2.5	53.0
712.0	9890.3	8.8	3.4	69.0
700.0	10352.4	7.6	2.3	69.0
647.4	12453.3	3.0	-1.3	70.0
591.6	14829.8	-3.1	-4.9	87.0
582.3	15243.4	-2.4	-6.0	76.0
528.6	17744.2	-8.2	-12.5	71.0
520.6	18133.7	-8.5	-15.3	58.0
500.0	19158.9	-11.2	-17.6	59.0
491.3	19601.4	-12.2	-18.5	59.0
477.7	20306.2	-13.2	-33.0	17.0
454.6	21541.5	-15.8	-37.8	13.0
436.0	22573.1	-18.0	-39.6	13.0
400.0	24674.0	-22.4	-39.1	20.0
353.0	27649.6	-30.0	-46.5	18.0
314.8	30304.3	-35.5	-50.3	20.0
300.0	31402.5	-37.8		
285.0	32558.0	-41.3		
250.0	35445.9	-48.0		
225.4	37670.0	-53.2		
205.8	39596.5	-54.2		
200.0	40199.4	-55.1		
192.0	41055.4	-56.7		
178.4	42585.7	-58.0		
169.8	43612.0	-58.0		
165.4	44155.7	-59.3		
150.0	46160.1	-62.2		
137.6	47915.5	-62.8		
122.8	50204.0	-67.1		
115.6	51414.4	-64.5		
108.8	52637.5	-64.2		
100.0	54329.1	-67.0		
95.6	55230.7	-64.7		
83.0	58051.9	-68.0		
77.0	59544.6	-66.2		
70.0	61446.9	-67.3		

STATION ALTITUDE 4126.59 FEET MSL
1 MAY 81 0815 HRS MDT
ASCENSION NO. 77

SIGNIFICANT LEVEL DATA
1210010077
HOLLOWAY
TABLE 17 CON'T

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE		REL.HUM. PERCENT
		AIR DEGREES	DEWPOINT CENTIGRADE	
62.6	63667.2	-68.1		
55.4	66115.8	-63.9		
53.3	66903.4	-61.1		
50.0	68212.4	-61.9		
43.2	71219.7	-59.3		

GEODETIC COORDINATES
32.88865 LAT DEG
106.09965 LON DEG

STATION ALTITUDE 4126.59 FEET MSL
 1 MAY 81 0815 HRS MDT
 ASCENSION NO. 77

UPPER AIR DATA
 1210010077
 HOLLOWMAN
 TABLE 18

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
4126.6	875.6	18.9	8.6	51.0	1039.4	667.4	21.0	1.000281
4500.0	864.1	19.7	8.1	47.0	1023.1	668.3	23.7	1.000276
5000.0	849.0	19.6	8.0	47.0	1005.3	668.2	30.5	1.000272
5500.0	833.9	18.6	7.3	47.7	991.1	667.0	43.8	1.000266
6000.0	819.2	17.6	6.6	48.3	977.1	665.8	108.9	1.000261
6500.0	804.7	16.6	5.8	48.9	963.3	664.6	110.6	1.000256
7000.0	790.4	15.6	5.1	49.6	949.7	663.4	112.2	1.000252
7500.0	776.4	14.6	4.3	50.2	936.3	662.2	111.3	1.000247
8000.0	762.7	13.6	3.6	50.8	923.1	660.9	110.5	1.000242
8500.0	749.0	12.4	2.9	52.1	910.2	659.6	116.9	1.000238
9000.0	735.5	11.2	2.7	55.8	897.7	658.2	125.0	1.000235
9500.0	722.2	9.8	3.2	63.2	885.5	656.7	139.3	1.000234
10000.0	709.1	8.5	3.2	69.0	873.5	655.2	154.9	1.000231
10500.0	696.2	7.3	2.0	69.1	861.5	653.6	159.7	1.000226
11000.0	683.3	6.2	1.0	69.3	849.1	652.3	163.4	1.000221
11500.0	670.8	5.1	-0.0	69.5	836.9	651.0	164.0	1.000216
12000.0	658.4	4.0	-1.0	69.8	824.9	649.6	164.6	1.000212
12500.0	646.3	2.9	-2.0	70.3	813.1	648.3	165.0	1.000207
13000.0	634.1	1.6	-2.5	73.9	801.6	646.7	165.3	1.000204
13500.0	622.2	1.3	-3.1	77.5	790.3	645.2	159.2	1.000201
14000.0	610.5	-1.0	-3.8	81.1	779.2	643.6	154.8	1.000197
14500.0	598.0	-2.3	-4.5	84.6	768.2	642.1	148.9	1.000194
15000.0	587.8	-2.8	-5.4	82.5	755.4	641.4	145.7	1.000190
15500.0	576.5	-3.0	-6.7	75.5	741.7	641.1	144.2	1.000184
16000.0	565.5	-4.2	-8.0	74.5	730.7	639.7	143.2	1.000180
16500.0	554.7	-5.3	-9.3	73.5	720.0	638.2	144.4	1.000176
17000.0	544.0	-6.5	-10.6	72.5	709.3	636.8	145.6	1.000173
17500.0	533.6	-7.6	-11.9	71.5	698.9	635.4	149.6	1.000169
18000.0	523.3	-8.4	-14.3	62.5	687.6	634.4	155.3	1.000164
18500.0	513.1	-9.5	-16.1	58.4	677.1	633.0	161.7	1.000160
19000.0	503.1	-10.8	-17.2	58.8	667.3	631.4	168.4	1.000157
19500.0	493.3	-12.0	-18.3	59.0	657.2	629.9	175.0	1.000154
20000.0	483.6	-12.8	-24.9	35.2	646.5	628.8	179.9	1.000149
20500.0	474.0	-13.6	-33.7	16.4	636.0	627.7	183.1	1.000144
21000.0	464.6	-14.7	-35.6	14.8	626.0	626.4	185.7	1.000141
21500.0	455.4	-15.7	-37.6	13.1	616.1	625.1	184.1	1.000139
22000.0	446.2	-16.8	-38.6	13.0	606.3	623.8	182.1	1.000136
22500.0	437.3	-17.8	-39.5	13.0	596.6	622.5	179.7	1.000134
23000.0	428.4	-18.9	-39.3	14.4	586.9	621.3	176.7	1.000132
23500.0	419.7	-19.9	-39.1	16.1	577.4	620.0	179.1	1.000130

STATION ALTITUDE 4126.59 FEET MSL
 1 MAY 81 0815 HRS MDT
 ASCENSION NO. 77

UPPER AIR DATA
 1210010077
 HOLLOWMAN

GEOMETRIC PRESSURE TEMPERATURE
 ALTITUDE AIR DEPOINT
 MSL FEET MILLIBARS DEGREES CENTIGRADE

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	411.2	-21.0	39.1	17.8	568.0	618.7	183.4	14.4
24500.0	402.9	-22.0	39.1	19.4	558.8	617.4	192.7	13.6
25000.0	394.6	-23.2	39.9	19.8	549.9	615.9	204.0	14.0
25500.0	386.4	-24.5	41.2	19.4	541.2	614.3	212.2	15.9
26000.0	378.3	-25.8	42.4	19.1	532.7	612.8	215.7	19.3
26500.0	370.5	-27.1	43.7	18.8	524.4	611.2	217.8	22.8
27000.0	362.8	-28.3	44.9	18.4	516.2	609.6	217.6	26.8
27500.0	355.2	-29.6	46.2	18.1	508.1	608.0	217.7	30.7
28000.0	347.7	-30.7	47.0	18.3	499.6	606.6	213.7	34.2
28500.0	340.3	-31.8	47.7	18.6	491.0	605.3	209.9	37.7
29000.0	333.0	-32.8	48.4	19.0	482.6	604.0	206.6	39.8
29500.0	325.9	-33.8	49.2	19.4	474.4	602.7	203.4	40.7
30000.0	319.0	-34.9	49.9	19.8	466.3	601.4	201.1	41.4
30500.0	312.1	-35.9	52.3	16.4***	458.3	600.1	201.3	40.7
31000.0	305.3	-37.0	53.7	7.3**	450.3	598.7	201.4	40.0
31500.0	298.7	-38.1	58.1		442.7	597.3	203.2	39.6
32000.0	292.1	-39.6	52.1		435.7	595.4	205.2	39.3
32500.0	285.7	-41.1	56.8		429.0	593.4	206.7	40.0
33000.0	279.3	-42.3	52.3		421.6	591.9	207.9	41.2
33500.0	273.1	-43.5	55.1		414.2	590.4	208.8	43.0
34000.0	267.0	-44.6	50.0		407.0	588.9	209.4	45.4
34500.0	261.0	-45.8	51.1		399.9	587.4	209.4	47.2
35000.0	255.1	-47.0	51.8		392.9	585.9	207.4	47.4
35500.0	249.4	-48.1	54.1		386.1	584.4	205.4	47.6
36000.0	243.6	-49.3	53.4		379.1	582.9	202.5	47.0
36500.0	238.0	-50.5	56.0		372.4	581.4	199.4	46.4
37000.0	232.5	-51.6	51.6		365.7	579.8	199.0	47.9
37500.0	227.2	-52.8	54.1		359.2	578.3	200.7	50.9
38000.0	221.9	-53.4	54.8		351.8	577.5	202.7	53.9
38500.0	216.7	-53.6	55.7		343.9	577.2	206.6	56.1
39000.0	211.7	-53.9	56.6		336.3	576.9	210.1	58.6
39500.0	206.7	-54.1	57.1		328.9	576.5	212.6	57.0
40000.0	201.9	-54.8	57.5		322.1	575.7	215.1	54.5
40500.0	197.2	-55.7	58.0		315.8	574.5	216.0	53.0
41000.0	192.5	-56.6	58.7		309.7	573.3	215.3	52.6
41500.0	187.9	-57.1	59.1		303.0	572.7	214.7	51.9
42000.0	183.5	-57.5	59.5		296.4	572.1	215.4	49.2
42500.0	179.1	-57.9	59.9		290.0	571.5	216.3	46.4
43000.0	174.9	-58.0	60.3		283.2	571.4	217.5	43.1
43500.0	170.7	-58.0	60.7		276.4	571.4	219.5	39.0

TABLE 18 CON'T

GEODETIC COORDINATES
 32.88865 LAT DEG
 106.09965 LON DEG

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4126.59 FEET MSL
 1 MAY 81 085 HRS N T
 ASCENSION NO. 77

UPPER AIR DATA
 1210010077
 HOLLOWAY
 TABLE 18 CON'T

GEO-METRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEPOINT CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES(TN)	INDEX OF REFRACTION
44000.0	166.6	-58.9		271.0	570.2	221.9	34.9	1.000060
44500.0	162.6	-59.8		265.6	569.0	222.6	34.9	1.000059
45000.0	156.7	-60.5		260.1	568.1	222.9	36.5	1.000058
45500.0	154.9	-61.2		254.7	567.1	223.2	38.1	1.000057
46000.0	151.2	-62.0		249.4	566.1	226.0	38.6	1.000056
46500.0	147.5	-62.3		243.7	565.7	228.8	39.2	1.000054
47000.0	145.9	-62.5		238.0	565.4	231.6	38.2	1.000053
47500.0	140.4	-62.7		232.4	565.2	235.0	34.1	1.000052
48000.0	137.0	-63.0		227.1	564.8	239.4	30.1	1.000051
48500.0	133.7	-63.9		222.5	563.5	239.6	26.0	1.000050
49000.0	130.4	-64.8		218.0	562.3	235.4	21.7	1.000049
49500.0	127.2	-65.8		213.6	561.0	229.1	17.7	1.000048
50000.0	124.1	-66.7		209.3	559.7	228.9	14.1	1.000047
50500.0	121.0	-66.5		203.9	560.1	231.8	10.7	1.000045
51000.0	118.0	-65.4		197.9	561.5	237.5	7.3	1.000044
51500.0	115.1	-64.5		192.2	562.8	257.7	5.1	1.000043
52000.0	112.3	-64.4		187.4	562.9	294.5	4.3	1.000042
52500.0	109.5	-64.2		182.7	563.1	317.9	4.6	1.000041
53000.0	106.9	-64.8		178.7	562.3	279.0	3.5	1.000040
53500.0	104.2	-65.6		175.0	561.2	237.9	4.4	1.000039
54000.0	101.7	-66.5		171.3	560.1	237.3	8.1	1.000038
54500.0	99.2	-66.6		167.2	559.9	237.7	12.0	1.000037
55000.0	96.7	-65.3		162.1	561.7	241.8	13.5	1.000036
55500.0	94.3	-65.1		157.9	562.0	247.7	13.5	1.000035
56000.0	92.0	-65.8		154.5	561.0	252.0	13.5	1.000034
56500.0	89.7	-66.5		151.2	560.1	252.8	12.5	1.000034
57000.0	87.5	-67.1		148.0	559.2	253.8	11.5	1.000033
57500.0	85.3	-67.8		144.6	558.2	257.2	11.5	1.000032
58000.0	83.2	-68.5		141.7	557.5	261.3	11.8	1.000032
58500.0	81.2	-67.9		137.7	558.2	266.0	12.2	1.000031
59000.0	79.1	-67.1		133.8	559.3	273.9	12.7	1.000030
59500.0	77.2	-66.3		130.0	560.5	281.2	13.4	1.000029
60000.0	75.3	-66.5		126.9	560.1	261.9	13.4	1.000028
60500.0	73.4	-66.8		123.9	559.7	280.8	13.1	1.000028
61000.0	71.6	-67.0		121.0	559.3	277.6	13.4	1.000027
61500.0	69.8	-67.3		118.2	558.9	272.2	14.8	1.000026
62000.0	68.1	-67.5		115.3	558.7	268.4	16.2	1.000026
62500.0	66.4	-67.7		112.6	558.4	274.4	16.7	1.000025
63000.0	64.7	-67.9		109.9	558.2	280.0	17.4	1.000024
63500.0	63.1	-68.0		107.2	557.9	294.1	16.8	1.000024

STATION ALTITUDE 4126.59 FEET MSL
 1 MAY 81 0815 HRS MOT
 ASCENSION NO. 77

UPPER AIR DATA
 1210010077
 HOLLOWAY
 TABLE 18 CON'T

GEOMETRIC ALTITUDE MSL FEET	PRESURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	61.6	-67.5		104.3	558.6	313.5	17.1	1.000023
64500.0	60.1	-66.7		101.3	559.8	330.6	18.6	1.000023
65000.0	58.6	-65.8		98.4	561.0	346.9	18.3	1.000022
65500.0	57.1	-65.0		95.6	562.1	2.5	19.5	1.000021
66000.0	55.7	-64.1		92.9	563.3	9.0	16.2	1.000021
66500.0	54.4	-62.5		89.9	565.4	14.5	10.4	1.000020
67000.0	53.0	-61.2		87.2	567.2	27.7	5.2	1.000019
67500.0	51.8	-61.5		85.2	566.8	19.8	2.6	1.000019
68000.0	50.5	-61.8		83.3	566.4	283.3	.7	1.000019
68500.0	49.3	-61.7		81.2	566.6	289.9	1.7	1.000018
69000.0	48.1	-61.2		79.1	567.1	335.5	4.5	1.000018
69500.0	47.0	-60.8		77.0	567.7	344.6	7.9	1.000017
70000.0	45.8	-60.4		75.0	568.3		1.000017	
70500.0	44.7	-59.9		73.1	568.9		1.000016	
71000.0	43.7	-59.5		71.2	569.5		1.000016	

STATION ALTITUDE 4126.59 FEET MSL
 1 MAY 81 085 HRS MDT
 ASCENSION NO. 77

MANDATORY LEVELS
 1210010077
 HOLLOWMAN
 TABLE 19

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	AIR DEWPONT CENTIGRADE	REL.HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES(TN)	SPEED KNOTS
850.0	4963.	19.7	8.1	47.	29.8	15.2
800.0	6666.	16.3	5.6	49.	111.1	5.5
750.0	8457.	12.5	2.9	52.	116.3	7.0
700.0	10343.	7.6	2.3	69.	158.3	6.6
650.0	12333.	3.2	-1.7	70.	164.9	6.5
600.0	14445.	-2.1	-4.4	84.	149.3	15.1
550.0	16704.	-5.8	-9.9	73.	144.9	21.8
500.0	19133.	-11.2	-17.6	59.	170.5	14.4
450.0	21761.	-16.3	-38.2	13.	182.9	23.2
400.0	24634.	-22.4	-39.1	20.	196.4	13.7
350.0	27800.	-30.4	-46.8	18.	215.1	33.1
300.0	31341.	-37.8			202.7	39.7
250.0	35370.	-48.0			205.6	47.6
200.0	40104.	-55.1			216.0	53.6
175.0	42877.	-58.0			217.3	43.4
150.0	46037.	-62.2			226.8	38.8
125.0	49708.	-66.4			228.2	15.3
100.0	54163.	-67.0			237.6	10.5
80.0	58590.	-67.4			270.1	12.4
70.0	61238.	-67.5			273.1	14.6
60.0	64283.	-66.6			330.0	18.6
50.0	67959.	-61.9			243.1	1.4

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 3989.00 FEET MSL
1 MAY 81 0910 HRS PDT
ASCENSION NO. 309

SIGNIFICANT LEVEL DATA
1210020309
WHITE SANDS
TABLE 20

GEOGRAPHIC COORDINATES
32°40'43" LAT DEG
106°37'33" LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	RLL HUM. PERCENT
AIR DEWPNT	DEGREES CENTIGRADE		
880.0	3989.0	20.8	56.0
850.0	4970.1	17.8	55.0
820.0	5975.9	15.1	58.0
800.4	6650.0	15.3	52.0
761.8	8029.7	12.4	59.0
700.0	10532.7	6.9	76.0
687.2	10831.2	5.8	79.0
633.2	13022.0	2.3	-4.9
589.4	14911.6	-2.3	-7.8
522.4	18023.4	-9.1	-30.9
500.0	19131.8	-12.2	-32.8
490.0	19638.9	-13.2	-29.4
482.2	20040.8	-13.2	-34.3
400.0	24629.1	-23.6	-44.1
378.0	25979.3	-27.5	-44.9
371.0	26421.5	-28.0	-36.4
357.4	27301.0	-29.8	-36.8
337.2	28656.7	-33.2	-41.2
330.8	29099.6	-33.7	-40.9
303.2	31092.1	-39.3	-49.3
300.0	31332.1	-39.9	-50.0
250.0	35374.2	-47.7	-44.0
223.8	37754.6	-52.9	-48.0
213.4	38766.2	-52.8	-50.0
200.0	40138.1	-55.1	
189.2	41303.0	-56.4	
166.8	43934.9	-57.2	
150.0	46134.2	-60.0	
123.6	50053.5	-67.1	
120.2	50611.8	-64.8	
100.0	54305.4	-66.0	
94.4	55463.7	-64.4	
88.6	56738.0	-66.1	
70.0	61454.4	-66.2	
64.8	62094.7	-67.5	
53.0	67058.2	-60.9	
50.0	68249.7	-62.8	
43.6	71068.8	-58.2	
39.4	73177.2	-58.1	
37.2	74383.9	-54.4	

STATION ALTITUDE 3489.00 FEET ASL
1 MAY 81 0918 HRS MDT
ASCENSION NO. 309

SIGNIFICANT LEVEL DATA
12100-0309
WHITE SANU,
TABLE 20 CON'T

GEODETIC COORDINATES
32.40043 LAT DEG
106.37033 LON DEG

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE DEGREES CENTIGRADE	KEL.HUM. PERCENT
30.0	78990.5	-49.7	
23.6	84262.8	-43.1	
21.2	86652.9	-43.4	
20.0	87955.3	-41.8	
16.4	92430.0	-39.5	
14.6	95064.2	-39.7	
13.4	97026.2	-35.1	
11.6	100343.7	-37.3	
10.0	103746.6	-36.7	

STATION ALTITUDE 3969.00 FEET MSL
1 MAY 81 09A MRS MDT
ASCENSION NO. 309

UPPER AIR DATA
1210020304
WHITE SANUS
TABLE 21

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. DEWPOINT PERCENT	DENSITY GM/CUBIC METER	SHEET OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (IN) KNOTS	INFLUX OR REFRACTION
3989.0	880.0	20.0	11.7	56.0	1036.7	669.9	100.0 2.9
4010.0	879.7	20.8	11.7	56.0	1036.5	669.9	179.0 2.9
"500.0	864.2	19.2	10.1	55.5	1024.1	668.0	135.4 3.5
"500.0	849.1	17.7	8.6	55.1	1011.9	660.1	111.2 4.9
5500.0	834.1	16.4	7.7	56.6	983.8	664.5	99.9 6.9
6000.0	819.3	15.1	6.9	57.8	985.6	663.0	94.5 9.2
6500.0	804.7	15.3	5.8	53.3	967.8	663.0	94.2 12.3
7000.0	790.4	14.6	5.3	53.8	952.9	662.2	94.8 15.0
7500.0	770.2	13.5	5.0	56.3	939.3	661.0	90.7 16.7
8000.0	762.4	12.4	4.6	58.9	926.0	659.8	99.7 17.1
8500.0	740.6	11.3	4.4	62.5	913.0	658.4	104.1 16.2
9000.0	735.0	10.1	4.1	66.2	900.2	657.0	108.4 14.7
9500.0	721.7	8.9	3.7	69.9	887.7	655.6	113.4 12.8
10000.0	706.6	7.7	3.3	73.6	875.3	654.2	116.7 11.7
10500.0	695.7	6.5	2.8	77.0	863.0	652.8	118.6 11.1
11000.0	682.9	5.5	1.9	77.5	850.3	651.6	121.7 10.3
11500.0	670.2	4.7	0.3	72.9	837.3	650.6	125.2 9.5
12000.0	657.8	3.9	-1.4	68.3	824.4	649.5	124.6 10.3
12500.0	645.7	3.1	-3.1	63.8	811.8	648.5	123.6 11.3
13000.0	633.7	2.3	-4.8	59.2	799.3	647.4	124.3 15.2
13500.0	621.8	1.1	-5.5	61.0	787.8	646.0	125.0 18.6
14000.0	610.1	-0.1	-6.2	63.1	776.5	644.5	129.6 21.6
14500.0	590.7	-1.3	-7.0	65.3	765.4	643.1	133.4 23.4
15000.0	581.4	-2.5	-8.0	65.5	754.4	641.6	137.7 22.9
15500.0	576.1	-3.6	-10.8	57.2	743.2	640.2	142.6 21.5
16000.0	565.0	-4.7	-13.8	48.8	732.2	638.8	149.4 19.0
16500.0	554.2	-5.8	-17.0	40.5	721.3	637.4	157.0 17.0
17000.0	543.5	-6.9	-20.7	32.1	710.5	636.0	167.7 15.6
17500.0	533.1	-8.0	-25.0	23.7	699.9	634.6	170.5 15.1
18000.0	522.9	-9.0	-30.6	15.4	689.5	633.2	182.6 15.3
18500.0	512.6	-10.4	-31.7	15.4	679.6	631.5	183.2 16.8
19000.0	502.6	-11.8	-32.6	15.9	669.8	629.9	180.4 19.2
19500.0	492.7	-12.9	-30.2	21.8	659.4	628.6	175.3 22.0
20000.0	482.0	-13.2	-33.7	15.9	647.1	626.2	170.4 25.0
20500.0	473.3	-14.2	-35.3	14.8	636.6	620.9	170.3 24.7
21000.0	463.7	-15.4	-36.3	14.6	626.0	625.0	171.0 24.1
21500.0	454.4	-16.5	-37.4	14.4	616.6	624.2	174.1 23.4
22000.0	445.2	-17.6	-38.5	14.1	606.9	622.8	170.9 22.7
22500.0	436.2	-18.8	-39.6	13.9	597.3	621.4	173.6 22.1
23000.0	427.4	-19.9	-40.6	13.7	587.9	620.0	179.1 21.5

STATION ALTITUDE 3989.00 FEET MSL
1 MAY 81 0918 HRS MDT
ASCENSION NO. 309

UPPER AIR DATA
1210020304
WHITE SANDS
TABLE 21 CNT' T

GEODETIC COORDINATES
32°40'04.3 LAT DEG
106.37033 LON DEG

GEODETIC PRESSURE ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	SPEED KNOTS	INDEX OF REFRACTION
23500.0	410.8	-41.7	13.5	578.7	616.6	176.4	1.000150
24000.0	410.4	-42.0	13.3	569.6	617.2	177.6	1.000129
24500.0	404.1	-23.3	43.9	560.6	615.8	177.2	1.000126
25000.0	395.8	-24.7	44.3	552.1	614.1	179.6	1.000124
25500.0	385.7	-26.1	44.6	543.0	612.3	183.0	1.000122
26000.0	377.7	-27.5	44.3	535.6	610.6	160.3	1.000120
26500.0	369.8	-28.2	36.5	525.6	609.9	189.5	1.000119
27000.0	361.0	-29.2	36.7	516.8	608.6	194.2	1.000117
27500.0	354.4	-30.3	49.1	508.2	607.2	199.4	1.000115
28000.0	349.8	-31.6	46.9	500.0	605.6	201.4	1.000113
28500.0	339.5	-32.8	40.7	492.0	604.0	202.2	1.000111
29000.0	332.6	-33.6	40.9	483.0	603.0	199.7	1.000110
29500.0	325.1	-34.6	42.5	474.7	601.7	196.3	1.000107
30000.0	318.0	-35.8	44.5	466.7	600.2	195.0	1.000105
30500.0	311.2	-36.9	46.6	458.6	598.8	194.5	1.000103
31000.0	304.4	-38.1	48.9	451.1	597.3	195.4	1.000101
31500.0	297.7	-39.3	40.0	443.5	595.8	196.7	1.000100
32000.0	291.1	-40.4	42.5	435.6	594.4	198.5	1.000097
32500.0	284.6	-41.4	44.0	427.9	593.0	200.5	1.000095
33000.0	278.3	-42.5	45.5	420.3	591.6	203.2	1.000094
33500.0	272.1	-43.6	49.1	412.9	590.2	205.6	1.000092
34000.0	266.0	-44.7	40.0	405.6	588.8	205.5	1.000090
34500.0	260.1	-45.8	39.8	398.5	587.4	204.3	1.000089
35000.0	254.3	-46.9	39.1	391.5	586.0	201.7	1.000087
35500.0	249.5	-48.0	40.0	384.5	584.6	198.5	1.000086
36000.0	244.8	-49.1	41.2	377.5	583.2	198.7	1.000084
36500.0	239.2	-50.2	40.2	370.6	581.8	200.3	1.000083
37000.0	234.3	-51.3	41.3	363.9	580.5	200.3	1.000081
37500.0	229.5	-52.3	42.5	357.5	578.9	199.5	1.000080
38000.0	224.2	-52.9	43.6	349.9	576.2	200.0	1.000078
38500.0	219.1	-52.3	41.7	341.7	578.3	201.5	1.000076
39000.0	214.1	-53.2	42.5	334.3	577.6	203.8	1.000074
39500.0	209.1	-54.0	43.4	327.7	576.7	207.6	1.000073
40000.0	204.3	-54.9	44.3	321.3	575.6	211.9	1.000072
40500.0	199.6	-55.5	45.5	314.6	574.7	210.7	1.000070
41000.0	194.0	-56.1	46.0	308.0	574.0	209.3	1.000069
41500.0	187.4	-56.5	47.4	301.3	573.5	207.7	1.000067
42000.0	183.0	-56.6	47.5	294.4	573.3	206.0	1.000066
42500.0	178.7	-56.8	47.7	287.6	573.1	205.2	1.000064
43000.0	174.4	-56.9	47.7	281.0	572.9	203.7	1.000063

STATION ALTITUDE 3988.00 FEET MSL
 1 MAY 81 0918 IRS MDI
 ASCESSION NO. 309

UPPER AIR DATA
 1210020309
 WHITE SANDS
 TABLE 21 CUN'T

GEODETIC COORDINATES
 32°40.043 LAT LEG
 106.37033 LONG LEG

GEODETIC PRESSURE ALTIITUDE MSL FEET	TEMPERATURE AIR DEPOINT DEGREES CELSIUS GRADE	REL.HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
43500.0	170.3	-57.1	274.6	572.7	211.3	44.6	1.000001
44000.0	169.3	-57.3	268.3	572.4	213.3	44.5	1.000000
44500.0	162.3	-57.9	262.7	571.5	215.2	44.6	1.000009
45000.0	150.4	-58.6	257.2	570.7	216.1	44.6	1.000007
45500.0	154.7	-59.2	251.8	569.8	216.7	44.6	1.000016
46000.0	151.0	-59.8	246.5	569.0	218.6	42.5	1.000055
46500.0	147.3	-60.7	241.5	567.9	222.4	37.8	1.000054
47000.0	145.7	-61.6	236.6	566.7	227.2	33.4	1.000053
47500.0	140.2	-62.5	231.9	565.5	233.2	27.0	1.000052
48000.0	130.8	-63.4	227.2	564.2	242.7	20.8	1.000051
48500.0	133.5	-64.3	222.6	563.0	252.0	15.9	1.000050
49000.0	130.2	-65.2	218.1	561.8	257.6	11.9	1.000049
49500.0	127.0	-66.1	213.7	560.6	265.5	8.4	1.000048
50000.0	123.9	-67.0	209.4	559.4	261.0	7.3	1.000047
50500.0	120.9	-65.3	202.5	561.7	233.2	6.9	1.000045
51000.0	117.9	-64.9	197.2	562.2	225.7	6.9	1.000044
51500.0	115.0	-65.1	192.5	561.9	221.5	7.0	1.000043
52000.0	112.2	-65.3	188.0	561.7	215.6	7.3	1.000042
52500.0	109.4	-65.4	183.5	561.5	203.7	8.5	1.000041
53000.0	106.7	-65.6	179.1	561.3	195.0	10.0	1.000040
53500.0	104.1	-65.7	174.8	561.1	198.5	11.3	1.000039
54000.0	101.5	-65.9	170.7	560.8	207.5	12.7	1.000038
54500.0	99.0	-65.7	166.3	561.1	215.1	14.2	1.000037
55000.0	96.6	-65.0	161.7	562.0	236.9	12.7	1.000036
55500.0	94.2	-64.4	157.3	562.8	220.4	13.2	1.000035
56000.0	91.9	-65.1	153.9	561.9	272.6	13.8	1.000034
56500.0	89.7	-65.8	150.6	561.0	279.0	13.2	1.000034
57000.0	87.4	-66.1	147.1	560.6	285.8	12.8	1.000033
57500.0	85.3	-66.1	143.5	560.6	278.9	12.5	1.000032
58000.0	83.2	-66.1	140.0	560.5	273.6	12.2	1.000031
58500.0	81.1	-66.1	136.5	560.5	269.1	12.5	1.000030
59000.0	79.1	-66.1	133.2	560.5	265.2	13.8	1.000029
59500.0	77.2	-66.2	129.9	560.5	259.2	15.1	1.000029
60000.0	75.3	-66.2	126.7	560.5	259.0	16.1	1.000028
60500.0	73.4	-66.2	123.6	560.5	260.6	16.8	1.000028
61000.0	71.6	-66.2	120.5	560.5	262.1	17.5	1.000027
61500.0	69.8	-66.2	117.6	560.4	275.7	15.5	1.000026
62000.0	68.1	-66.7	114.9	559.8	292.2	14.6	1.000026
62500.0	66.4	-67.1	112.3	559.2	303.8	14.4	1.000025
63000.0	64.8	-67.5	109.7	558.7	306.0	13.7	1.000024

STATION ALTITUDE 3989.00 FEET MSL
1 MAY 81 0918 HRS MDT
ASCENSION NO. 309

UPPER AIR DATA
1210020309
WHITE SANDS
TABLE 21 CON'T

EQUATORIAL COORDINATES
32°40'04.3" LAT Δ
106°37'03.3" LON LEG

GEOPHYSIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	INDEX OF REFRACTION
3500.0	63.2	-66.7		106.6	559.8	310.9	13.1
3400.0	61.7	-65.9		103.6	560.9	309.8	10.8
34500.0	60.1	-65.1		100.7	562.0	307.6	7.9
3500.0	59.7	-64.2		97.9	563.1	302.6	5.0
35500.0	57.0	-63.4		95.1	564.2	317.2	3.3
36000.0	55.8	-62.6		92.4	565.3	353.5	2.6
36500.0	54.5	-61.8		89.8	566.4	31.0	3.2
37000.0	53.2	-61.0		87.3	567.4	26.3	4.0
37500.0	51.9	-61.6		85.4	569.6	22.0	4.8
38000.0	50.6	-62.4		83.7	565.6	17.0	5.7
38500.0	49.4	-62.4		81.6	565.6	19.9	6.1
39000.0	48.2	-61.6		79.4	568.7	23.1	6.6
39500.0	47.1	-60.8		77.2	567.8	25.0	7.0
40000.0	45.9	-59.9		75.0	568.8	25.8	6.7
40500.0	44.8	-59.1		73.0	569.9	25.6	6.4
41000.0	43.7	-58.3		70.9	571.0	20.0	6.1
41500.0	42.7	-58.2		69.2	571.2	30.5	6.2
42000.0	41.7	-58.2		67.6	571.2	35.9	6.3
42500.0	40.7	-58.1		65.9	571.3	37.6	6.3
43000.0	39.7	-58.1		64.4	571.3	41.4	6.4
43500.0	38.8	-57.1		62.6	572.6	45.1	6.4
44000.0	37.9	-55.6		60.7	574.6	47.1	6.4
44500.0	37.0	-54.3		58.9	576.4	47.3	6.2
45000.0	36.1	-53.8		57.4	577.0	47.5	6.1
45500.0	35.3	-53.3		55.9	577.7	40.5	5.6
46000.0	34.5	-52.8		54.5	578.4	26.2	5.1
46500.0	33.7	-52.2		53.1	579.0	9.9	4.9
47000.0	32.9	-51.7		51.8	579.7	9.8	4.7
47500.0	32.2	-51.2		50.5	580.4	18.5	4.5
48000.0	31.4	-50.7		49.2	581.0	27.9	4.3
48500.0	30.7	-50.2		48.0	581.7	40.7	4.6
49000.0	30.0	-49.7		46.7	582.4	63.7	5.6
49500.0	29.3	-49.1		45.6	583.2	75.3	6.8
50000.0	28.7	-48.6		44.4	584.0	31.6	6.0
50500.0	28.0	-47.8		43.3	584.8	85.9	6.2
51000.0	27.4	-47.2		42.2	585.6	69.2	6.4
51500.0	26.8	-46.6		41.1	586.4	98.2	11.2
52000.0	26.2	-45.9		40.1	587.2	105.4	12.1
52500.0	25.6	-45.3		39.1	588.0	109.6	13.1
53000.0	25.0	-44.7		38.1	588.9	115.4	13.1

STATION ALTITUDE 3989.00 FEET MSL
1 MAY 81 0918 HRS MDT
ASCENSION NO. 509

WEATHER AIR DATA
12100203UY
WHITE SANDS
TABLE 21 CNT'D

GEODETIC COORDINATES
32°40'04.3 LAT deg
106°37'03.3 LONG deg

GEOMETRIC ALITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	REL. HUM. PERCENT	SPEED OF SOUND KNOTS	WIND DATA DIRCTION DEGREES (TM)	INDEX OF REFRACTION
85500.0	24.4	-44.1	37.2	589.7	121.6	1.0000008
84000.0	25.9	-43.4	36.2	590.5	128.1	12.5
84500.0	25.4	-43.1	35.4	590.9	129.6	12.0
85000.0	25.8	-43.2	34.6	590.6	128.9	11.2
85500.0	25.3	-43.3	33.8	590.7	127.8	10.4
86000.0	21.8	-43.3	33.1	590.6	129.2	9.0
86500.0	21.3	-43.4	32.4	590.5	133.9	7.1
87000.0	20.9	-43.0	31.6	591.1	141.4	5.3
87500.0	20.4	-42.4	30.8	591.8	139.1	3.8
88000.0	20.0	-41.8	30.1	592.6	108.9	3.1
88500.0	19.5	-41.5	29.4	592.9	75.9	3.5
89000.0	19.1	-41.3	28.7	593.2	66.7	5.4
89500.0	18.7	-41.0	28.0	593.0	74.7	9.1
90000.0	18.3	-40.7	27.4	593.3	78.1	12.8
90500.0	16.9	-40.5	26.8	594.2	80.9	16.1
91000.0	17.5	-40.2	26.1	594.6	88.3	17.6
91500.0	17.1	-40.0	25.5	594.6	90.9	19.2
92000.0	16.7	-39.7	24.9	595.2	94.4	20.8
92500.0	16.3	-39.5	24.4	595.6	94.2	21.4
93000.0	16.0	-39.5	23.8	595.4	94.0	21.9
93500.0	15.6	-39.6	23.3	595.4	93.9	22.5
94000.0	15.3	-39.6	22.8	595.3	93.7	22.7
94500.0	15.0	-39.7	22.3	595.3	93.5	22.7
95000.0	14.6	-39.7	21.8	595.2	93.4	22.7
95500.0	14.3	-38.7	21.3	595.3	93.2	22.7
96000.0	14.0	-37.5	20.7	593.0	93.0	23.2
96500.0	13.7	-36.3	20.2	599.5	92.7	23.7
97000.0	13.4	-35.2	19.6	601.0	92.4	24.3
97500.0	13.1	-35.4	19.2	600.7	92.5	24.9
98000.0	12.8	-35.7	18.8	600.3	93.1	25.7
98500.0	12.6	-36.1	18.5	599.6	93.7	26.5
99000.0	12.3	-36.4	18.1	599.4	94.3	27.3
99500.0	12.0	-36.7	17.7	599.0	92.2	27.0
100000.0	11.8	-37.1	17.4	598.6	88.0	26.3
100500.0	11.5	-37.3	17.0	598.5	84.8	25.7
101000.0	11.3	-37.2	16.6	598.4	80.8	25.2
101500.0	11.0	-37.1	16.3	598.5	81.0	24.5
102000.0	10.8	-37.0	15.9	598.7	80.4	24.0
102500.0	10.6	-36.9	15.6	598.8	80.9	23.5
103000.0	10.3	-36.8	15.2	598.9	81.3	23.0

STATION ALTITUDE 3989.00 FEET MSL
1 MAY 31 0918 HRS MDT
ASCENSION NO. 309

GEODETIC COORDINATES
32°40'04.3 LAT deg
106°37'03.5 LON deg
UPPER AIR DATA
1210020309
WHITE STATION

TABLE 21 CON'T

GEODETIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEWPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	WIND DATA DIRECTION DEGREES STD	INDEX OF REFRACTION
103500.0	10.1	-36.7				14.9	599.0	1.000003

STATION ALTITUDE 3989.00 FEET MSL
1 MAY 81 0918 HRS MDT
ASCENSION NO. 309

MANDATORY LEVELS
1210020309
WHITE SANDS
TABLE 22 CUNT

GEODETIC COORDINATES
32°40'43" LAT UEG
106°37'03" LONG UEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	AIR DEGREES CENTIGRADE	TEMPERATURE AIR DEGREE'S CENTIGRADE	REL.HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
450.0	4966.	17.9	8.6	55.	112.2	4.8
480.0	6659.	15.3	5.5	52.	94.2	13.3
510.0	8443.	11.4	4.4	62.	105.6	16.3
540.0	10322.	6.9	3.0	76.	118.1	11.3
570.0	12311.	3.4	-2.4	65.	123.9	10.9
600.0	14278.	-1.2	-6.9	65.	132.9	23.4
550.0	16684.	-6.2	-18.4	37.	161.5	16.4
500.0	19115.	-12.2	-32.8	16.	179.9	19.6
450.0	21726.	-17.0	-37.9	14.	175.8	23.0
400.0	24588.	-23.6	-44.1	13.	177.1	22.3
350.0	27740.	-31.0	-38.4	48.	201.0	31.5
300.0	31270.	-38.9			196.2	45.5
250.0	35297.	-47.7			199.4	54.5
200.0	40041.	-55.1			211.0	55.8
175.0	42424.	-56.9			208.3	46.7
150.0	45010.	-60.0			219.3	41.4
125.0	49686.	-66.7			257.1	7.7
100.0	54137.	-66.0			211.6	13.6
80.0	58587.	-66.1			265.5	13.1
70.0	61243.	-66.2			273.4	15.8
60.0	64304.	-65.0			307.0	7.9
50.0	67993.	-62.8			17.9	5.9
40.0	72573.	-58.1			40.0	6.3
30.0	78653.	-49.7			62.3	5.4
25.0	82612.	-44.7			114.7	13.1
20.0	87542.	-41.8			115.1	5.2
15.0	93979.	-39.7			93.0	7.2
10.0	103161.	-36.7			72.7	

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE 4051.00 FEET MSL
 1 MAY 81 0925 HRS MDT
 ASCESSION NO. 29

SIGNIFICANT LEVEL DATA

1210030029

JALLEN

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

TABLE 23

PRESSURE MILLIBARS	GEOMETRIC ALTITUDE MSL FEET	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT
876.4	4051.0	22.9	42.0
850.0	4923.7	21.0	9.3
769.4	7717.6	12.8	9.6
740.4	8777.8	11.9	6.6
700.0	10311.5	7.6	60.0
636.6	12863.1	2.4	67.0
600.6	14399.9	-2.1	94.0
557.0	16361.7	-4.9	87.0
523.0	17983.5	-7.6	82.0
511.2	18566.3	-9.0	53.0
500.0	19129.1	-10.1	39.0
458.0	21335.1	-14.4	25.0
427.2	23061.4	-17.3	20.0
400.0	24669.0	-22.0	28.0
374.8	26233.8	-25.4	28.0
360.6	27153.9	-26.7	31.0
309.0	31429.4	-37.6	27.0
250.0	35492.5	-46.6	24.0
219.6	38247.6	-52.8	
209.0	39340.6	-52.4	
200.0	40273.0	-54.9	
193.6	40156.4	-56.0	
165.0	44204.8	-58.9	
150.0	46244.6	-61.5	
134.6	47856.1	-62.6	
122.6	50324.7	-67.0	
118.0	51093.9	-62.9	
100.0	54438.2	-65.2	
81.6	58515.7	-66.2	
76.0	61581.9	-66.5	
62.0	64004.6	-67.0	
50.0	68349.2	-61.8	
37.2	74447.9	-58.4	
30.0	7902.1	-50.7	
20.0	87861.0	-44.7	
16.4	92316.1	-38.6	
13.7	96420.7	-37.3	

STATION ALTITUDE 1051.00 FEET MSL
 1 MAY 61 0925 HRS MDT
 ASCENSION NO. 29

UPPER AIR DATA
 1210030029
 JALLEN
 TABLE 24

GEODETIC COORDINATES
 33°16'712 LAT LEG
 106°49'511 LON DEG

GEOGRAPHIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE DEGREES CENTIGRADE	AIR DEWEPOINT PERCENT	REL. HUM. GM/CURIC METER	SOUND KNOTS	WIND DATA DIRECTION DEGREES (TN)	WIND SPEED KNOTS	INDEX OF REFRACTION
4051.0	876.4	22.9	9.3	42.0	1026.0	672.0	10.0	3.1
4500.0	862.7	21.9	9.5	45.1	1013.2	671.0	27.6	4.7
5000.0	847.7	20.8	9.5	48.5	999.4	669.7	36.5	6.8
5500.0	832.7	19.3	9.1	51.7	986.7	668.0	41.2	8.9
6000.0	818.0	17.8	8.7	54.9	974.2	666.3	48.7	8.6
6500.0	805.5	16.4	8.1	58.2	961.9	664.6	58.1	9.0
7000.0	789.3	14.9	7.6	61.4	949.8	662.9	66.3	10.4
7500.0	775.4	13.4	6.9	64.6	938.0	661.1	78.7	12.7
8000.0	761.6	12.6	6.0	64.4	924.2	660.0	86.5	14.2
8500.0	747.9	12.1	5.0	61.6	909.2	659.5	92.7	14.6
9000.0	734.4	11.3	4.0	61.0	895.7	658.4	96.1	13.4
9500.0	721.1	9.9	3.2	63.3	884.0	656.7	99.4	11.7
10000.0	708.0	8.5	2.4	65.6	872.4	655.0	99.5	9.9
10500.0	695.1	7.2	1.9	69.0	860.4	653.6	99.7	8.1
11000.0	682.3	6.2	2.0	74.3	847.5	652.4	103.1	7.3
11500.0	669.7	5.2	1.9	79.6	834.9	651.2	107.4	6.6
12000.0	657.4	4.2	1.8	84.9	822.5	650.1	120.7	6.5
12500.0	645.3	3.1	1.7	90.2	810.3	648.9	135.1	7.0
13000.0	633.3	2.0	1.0	93.4	798.7	647.5	142.9	8.1
13500.0	621.4	.5	-.7	91.1	788.2	645.6	143.3	9.7
14000.0	609.8	-.9	-2.5	88.8	777.9	643.8	143.7	11.4
14500.0	598.3	-2.2	-4.1	86.7	767.2	642.1	145.3	14.3
15000.0	586.9	-3.0	-5.0	85.5	754.7	641.2	147.3	17.0
15500.0	575.7	-3.7	-5.9	84.2	742.4	640.4	159.7	19.3
16000.0	564.8	-4.4	-6.8	92.9	730.3	639.5	168.1	21.7
16500.0	554.0	-5.1	-8.1	79.5	718.5	638.5	169.6	22.3
17000.0	542.4	-6.0	-10.4	70.6	707.1	637.4	169.7	22.1
17500.0	532.9	-6.8	-12.9	61.6	695.9	636.5	168.0	21.0
18000.0	522.7	-7.6	-15.6	52.6	684.9	635.2	171.0	20.9
18500.0	512.5	-8.8	-19.8	40.6	674.9	635.7	176.8	21.4
19000.0	502.5	-9.8	-24.8	29.2	664.5	632.3	181.2	23.9
19500.0	492.7	-10.8	-27.3	24.2	653.9	631.1	182.3	26.2
20000.0	482.0	-11.8	-28.7	23.0	643.5	629.9	182.0	27.6
20500.0	473.5	-12.8	-30.0	21.9	633.2	628.8	181.1	28.2
21000.0	464.1	-13.7	-31.4	20.8	623.1	627.6	179.0	27.2
21500.0	455.0	-14.7	-32.2	20.8	613.0	626.4	179.7	25.8
22000.0	446.9	-15.5	-31.8	23.1	602.7	625.4	174.1	23.6
22500.0	437.0	-16.4	-31.6	25.4	592.6	624.4	172.0	21.5
23000.0	428.3	-17.2	-31.4	27.7	582.7	623.4	171.5	19.5
23500.0	419.6	-18.6	-32.5	28.0	574.0	621.7	172.2	18.0

STATION ALTITUDE 4051.00 FEET MSL
 1 MAY 81 0925 HRS NDT
 ASCENSION NO. 29

UPPER AIR DATA
 1210030029
 JALLEN
 TABLE 24 CON'T

GEODETIC COORDINATES
 33°16'7.12 LAT DEG
 106°49'51.11 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	DEWPOINT PERCENT	REL.HUM. METER	GM/CURIC	SOUND KNOTS	DIRECTION DEGREES TN	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
24000.0	411.1	-20.0	-33.8	28.0	565.6	619.9	179.3	18.6	1.000128
24500.0	402.8	-21.5	-35.1	28.0	557.4	618.1	185.7	19.6	1.000126
25000.0	394.5	-22.7	-35.9	28.6	548.7	616.6	192.9	22.8	1.000124
25500.0	386.4	-23.8	-36.5	29.6	539.7	615.2	198.1	26.4	1.000122
26000.0	378.5	-24.9	-37.2	30.6	530.9	613.9	199.4	30.3	1.000120
26500.0	370.6	-25.8	-38.2	29.8	521.8	612.8	199.9	34.2	1.000118
27000.0	362.9	-26.5	-39.6	27.7	512.5	611.9	199.3	37.2	1.000115
27500.0	355.3	-27.6	-40.8	26.8	503.9	610.5	198.5	39.8	1.000113
28000.0	347.7	-28.9	-42.1	26.4	495.8	609.0	198.1	41.2	1.000111
28500.0	340.3	-30.1	-43.3	26.1	487.8	607.4	197.9	41.8	1.000109
29000.0	333.1	-31.4	-44.6	25.7	479.9	605.8	197.3	41.2	1.000108
29500.0	326.0	-32.7	-45.8	25.4	472.2	604.2	196.2	39.5	1.000106
30000.0	319.0	-34.0	-47.0	25.0	464.6	602.5	195.2	37.4	1.000104
30500.0	312.2	-35.2	-48.3	24.7	457.1	600.9	194.3	34.7	1.000102
31000.0	305.6	-36.5	-49.5	24.3	449.8	599.3	196.2	33.6	1.000101
31500.0	299.1	-37.8	-50.9	23.6**	442.5	597.7	204.8	37.3	1.000099
32000.0	292.4	-38.9	-53.0	20.6***	434.8	596.3	211.8	41.6	1.000097
32500.0	285.9	-40.0	-55.2	17.7***	427.2	594.9	209.0	43.5	1.000095
33000.0	279.6	-41.1	-57.6	14.7***	419.7	593.5	206.1	45.3	1.000094
33500.0	273.4	-42.2	-60.2	11.8**	412.3	592.1	202.2	45.2	1.000092
34000.0	267.3	-43.3	-63.3	8.8**	405.1	590.6	197.6	44.3	1.000090
34500.0	261.4	-44.4	-67.1	5.9**	398.1	589.2	197.1	44.6	1.000089
35000.0	255.6	-45.5	-72.8	2.9**	391.1	587.8	200.4	45.8	1.000087
35500.0	249.9	-46.6			384.3	586.4	201.5	46.9	1.000086
36000.0	244.2	-47.7			377.4	584.9	199.0	47.5	1.000084
36500.0	238.6	-48.8			370.5	583.5	196.9	48.3	1.000083
37000.0	233.1	-49.9			363.8	582.0	197.3	49.6	1.000081
37500.0	227.8	-51.1			357.3	580.6	197.7	50.9	1.000080
38000.0	222.5	-52.2			350.8	579.1	201.1	54.4	1.000078
38500.0	217.4	-52.7			343.6	578.4	204.2	58.2	1.000077
39000.0	212.4	-52.5			335.3	578.7	206.8	60.6	1.000075
39500.0	207.4	-52.8			328.0	578.3	209.2	62.4	1.000073
40000.0	202.6	-54.2			322.3	576.5	211.3	63.6	1.000072
40500.0	197.9	-55.3			316.3	575.1	212.3	58.1	1.000070
41000.0	193.2	-56.0			310.0	574.0	213.5	52.7	1.000069
41500.0	188.6	-56.5			303.2	573.5	214.0	48.2	1.000068
42000.0	184.1	-56.9			296.6	572.9	215.8	44.4	1.000066
42500.0	179.8	-57.3			290.2	572.3	216.6	41.3	1.000065
43000.0	175.5	-57.8			283.9	571.7	215.6	41.1	1.000063
43500.0	171.3	-58.2			277.7	571.1	214.6	40.9	1.000062

** AT LEAST ONE RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

STATION ALTITUDE: 4051.00 FEET MSL
 1 MAY 81 0925 HRS MDT
 ASCENSION NO. 29

UPPER AIR DATA
 1210030029
 JALLEN
 TABLE 24 CON'T

GEOGRAPHIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CURIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES (TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
44000.0	167.3	-58.7		271.7	570.6	213.7	39.8	1.000060
44500.0	163.3	-59.2		265.8	569.9	212.8	38.5	1.000059
45000.0	159.4	-59.8		260.3	569.0	212.7	37.9	1.000058
45500.0	155.5	-60.5		254.8	568.1	214.7	39.3	1.000057
46000.0	151.8	-61.2		249.5	567.2	216.7	40.7	1.000056
46500.0	146.1	-61.7		244.0	566.5	218.2	40.2	1.000054
47000.0	144.5	-62.0		238.5	566.1	219.7	39.0	1.000053
47500.0	141.0	-62.4		233.1	565.6	220.8	37.2	1.000052
48000.0	137.6	-62.9		228.0	564.9	220.0	31.8	1.000051
48500.0	134.2	-63.7		223.3	563.8	218.9	26.5	1.000050
49000.0	130.9	-64.6		218.8	562.5	218.1	22.1	1.000049
49500.0	127.7	-65.5		214.3	561.3	217.6	18.4	1.000048
50000.0	124.6	-66.4		210.0	560.1	216.9	14.6	1.000047
50500.0	121.5	-66.1		204.5	560.6	218.6	11.0	1.000046
51000.0	118.6	-63.4		196.9	564.2	222.0	7.4	1.000044
51500.0	115.7	-63.2		191.9	564.5	218.2	4.9	1.000043
52000.0	112.8	-63.5		187.5	564.1	196.4	4.1	1.000042
52500.0	110.1	-63.9		183.2	563.6	170.0	4.1	1.000041
53000.0	107.4	-64.2		179.0	563.1	180.7	5.0	1.000040
53500.0	104.8	-64.6		174.9	562.7	190.4	6.2	1.000039
54000.0	102.2	-64.9		170.9	562.2	194.8	6.7	1.000038
54500.0	99.7	-65.2		167.0	561.8	194.7	5.9	1.000037
55000.0	97.2	-65.3		163.0	561.6	194.6	5.1	1.000036
55500.0	94.8	-65.5		159.1	561.4	230.6	6.7	1.000035
56000.0	92.5	-65.6		155.3	561.3	249.8	10.4	1.000035
56500.0	90.2	-65.7		151.5	561.1	257.4	14.2	1.000034
57000.0	88.0	-65.8		147.9	560.9	260.4	17.1	1.000033
57500.0	85.8	-66.0		144.3	560.8	262.6	20.1	1.000032
58000.0	83.7	-66.1		140.9	560.6	267.0	18.5	1.000031
58500.0	81.7	-66.2		137.5	560.4	274.1	15.7	1.000031
59000.0	79.6	-66.2		134.1	560.4	283.1	13.6	1.000030
59500.0	77.7	-66.3		130.8	560.3	286.9	14.7	1.000029
60000.0	75.8	-66.3		127.6	560.2	290.2	15.9	1.000028
60500.0	73.9	-66.4		124.5	560.2	290.4	16.8	1.000028
61000.0	72.1	-66.4		121.5	560.1	287.8	17.5	1.000027
61500.0	70.3	-66.5		118.5	560.0	285.4	18.3	1.000026
62000.0	68.5	-66.6		115.6	559.9	285.2	18.4	1.000026
62500.0	66.9	-66.7		112.8	556.8	285.4	18.4	1.000025
63000.0	65.2	-66.8		110.1	559.6	286.5	18.4	1.000025
63500.0	63.6	-66.9		107.4	559.5	290.7	18.3	1.000024

STATION ALTITUDE 4051.00 FEET MSL
1 MAY 81 0925 HRS NDT
ASCENSION NO. 29

UPPER AIR DATA
1210030029
JALLEN
TABLE 24 CUN'T

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEPOINT DEGREES CENTIGRADE	REL.HUM. PERCENT	DENSITY GM/CUBIC METER	SPEED OF SOUND KNOTS	DIRECTION DEGREES(TN)	WIND DATA SPEED KNOTS	INDEX OF REFRACTION
64000.0	62.0	-67.0		104.8	559.4	294.8	18.4	1.000023
64500.0	60.5	-66.4		101.9	560.2	302.1	17.2	1.000023
65000.0	59.0	-65.8		99.2	561.0	312.6	15.8	1.000022
65500.0	57.6	-65.2		96.5	561.8	324.7	14.9	1.000021
66000.0	56.2	-64.6		93.8	562.6	338.9	11.0	1.000021
66500.0	54.8	-64.0		91.3	563.4	4.8	8.4	1.000020
67000.0	53.5	-63.4		88.8	564.2	33.3	7.9	1.000020
67500.0	52.1	-62.8		86.4	565.0	49.3	7.9	1.000019
68000.0	50.9	-62.2		84.0	565.8	64.1	8.5	1.000019
68500.0	49.6	-61.7		81.6	566.5	69.2	8.6	1.000018
69000.0	48.4	-61.4		79.7	566.9	68.6	8.2	1.000018
69500.0	47.3	-61.2		77.7	567.2	67.9	7.8	1.000017
70000.0	46.2	-60.9		75.7	567.6	65.7	7.3	1.000017
70500.0	45.0	-60.6		73.8	568.0	62.5	6.7	1.000016
71000.0	44.0	-60.3		72.0	568.3	58.8	6.1	1.000016
71500.0	42.9	-60.0		70.2	568.7	58.0	5.6	1.000016
72000.0	41.9	-59.8		68.4	569.1	57.1	5.2	1.000015
72500.0	40.9	-59.5		66.7	569.5	54.8	4.7	1.000015
73000.0	39.9	-59.2		65.0	569.8	43.2	4.3	1.000014
73500.0	38.9	-58.9		63.3	570.2	30.0	4.1	1.000014
74000.0	38.0	-58.6		61.7	570.6	18.0	4.5	1.000014
74500.0	37.1	-58.3		60.2	571.0	11.4	5.6	1.000013
75000.0	36.2	-57.5		58.5	572.1	8.0	6.8	1.000013
75500.0	35.4	-56.6		56.9	573.3	8.9	7.5	1.000013
76000.0	34.6	-55.8		55.4	574.4	16.1	7.5	1.000012
76500.0	33.8	-54.9		53.9	575.5	23.3	7.7	1.000012
77000.0	33.0	-54.1		52.4	576.6	29.3	7.7	1.000012
77500.0	32.2	-53.2		51.0	577.7	34.4	7.5	1.000011
78000.0	31.5	-52.4		49.6	578.8	39.7	7.3	1.000011
78500.0	30.7	-51.5		48.3	579.9	44.5	7.4	1.000011
79000.0	30.0	-50.7		47.0	581.0	48.5	7.7	1.000010
79500.0	29.3	-50.4		45.9	581.5	52.2	8.0	1.000010
80000.0	28.7	-50.0		44.7	581.9	55.9	8.5	1.000010
80500.0	28.0	-49.7		43.7	582.4	59.4	9.2	1.000010
81000.0	27.4	-49.3		42.6	582.8	62.3	10.0	1.000009
81500.0	26.8	-49.0		41.6	583.3	69.7	11.0	1.000009
82000.0	26.2	-48.7		40.6	583.7	80.5	12.6	1.000009
82500.0	25.6	-48.3		39.6	584.1	88.6	14.6	1.000009
83000.0	25.0	-48.0		38.7	584.6	91.0	16.1	1.000009
83500.0	24.4	-47.7		37.7	585.0	10.7	16.7	1.000008

STATION ALTITUDE 4051.00 FEET MSL
1 MAY 81 0925 HRS VDT
ASCENSION NO. 29

UPPER AIR DATA
1210030029
JALLEN

TABLE 24 CUN'T

GEODETIC COORDINATES
33.16712 LAT DEG
106.49511 LON DEG

GEOMETRIC PRESSURE ALTITUDE MSL FEET	PRESSURE MILLIBARS	TEMPERATURE AIR DEGREES	DEWPOINT CENTIGRADE	REL.HUM. PERCENT	GM/CURRIC METER	SOUND KNOTS	WIND DIA- RECTION DEGREES(TN)	INDEX OF REFRACTION
84000.0	23.9	-47.3			36.6	585.5	114.4	17.8
84500.0	23.3	-47.0			35.9	585.9	121.8	19.3
85000.0	22.8	-46.6			35.1	586.3	122.8	17.2
85500.0	22.3	-46.3			34.2	586.8	123.1	14.6
86000.0	21.8	-46.0			33.4	587.2	123.4	11.9
86500.0	21.3	-45.6			32.6	587.6	122.5	9.5
87000.0	20.8	-45.3			31.8	588.1	118.1	7.6
87500.0	20.3	-44.9			31.0	588.5	110.6	5.7
88000.0	19.9	-44.5			30.3	589.1	90.2	3.9
88500.0	19.4	-43.8			29.5	590.0	92.9	3.3
89000.0	19.0	-43.1			28.8	590.8	93.0	2.8
89500.0	18.6	-42.5			28.1	591.7	93.1	2.2
90000.0	18.2	-41.8			27.4	592.6	84.7	2.1
90500.0	17.8	-41.1			26.7	593.5	66.7	3.6
91000.0	17.4	-40.4			26.0	594.3	59.3	5.1
91500.0	17.0	-39.7			25.4	595.2	56.4	6.7
92000.0	16.6	-39.0			24.7	596.1	69.3	8.8
92500.0	16.3	-38.5			24.2	596.7	83.3	11.9
93000.0	15.9	-38.4			23.6	596.9	91.2	15.4
93500.0	15.6	-38.2			23.1	597.1		1.000005
94000.0	15.2	-38.1			22.6	597.3		1.000005
94500.0	14.9	-37.9			22.1	597.5		1.000005
95000.0	14.6	-37.7			21.6	597.7		1.000005
95500.0	14.3	-37.6			21.1	597.9		1.000005
96000.0	14.0	-37.4			20.6	598.1		1.000005

STATION ALTITUDE 4051.00 FEET MSL
 1 MAY 61 0955 HRS MDT
 ASCENSION NO. 29

MANDATORY LEVELS
 1210030029
 JALLEN
 TABLE 25

GEODETIC COORDINATES
 33.16712 LAT DEG
 106.49511 LON DEG

PRESSURE MILLIBARS	GEOPOTENTIAL FEET	TEMPERATURE DEGREES	DEWPONT CENTIGRADE	REL.HUM. PERCENT	WIND DATA	
					DIRECTION DEGREES (TN)	SPEED KNOTS
850.0	4920.	21.0	9.6	48*	35.5	6.4
800.0	6628.	16.0	8.0	59*	60.4	9.4
750.0	8416.	12.2	5.1	62*	91.7	14.5
700.0	10302.	7.6	1.9	67*	99.6	8.8
650.0	12295.	3.5	1.8	86*	129.7	6.8
600.0	14410.	-2.1	-4.0	87*	145.1	13.8
550.0	16668.	-5.4	-9.0	76*	170.1	22.4
500.0	19103.	-10.1	-26.3	25*	130.9	24.5
450.0	21742.	-15.1	-32.0	22*	175.4	24.6
400.0	24629.	-22.0	-35.5	26*	186.2	20.6
350.0	27811.	-28.5	-41.7	27*	196.1	41.0
300.0	31369.	-37.6	-50.6	24*	203.5	36.6
250.0	35417.	-46.6			201.6	46.9
200.0	40178.	-54.9			211.8	60.8
175.0	42957.	-57.8			215.5	41.1
150.0	46122.	-61.5			217.4	40.8
125.0	49797.	-66.3			217.0	15.2
100.0	54273.	-65.2			194.7	6.0
80.0	58720.	-66.2			281.4	15.8
70.0	61374.	-66.5			285.2	18.3
60.0	64432.	-66.2			304.7	16.8
50.0	68096.	-61.8			69.4	6.8
40.0	72656.	-59.2			45.4	4.4
30.0	78670.	-50.7			48.3	7.6
25.0	82591.	-48.0			94.7	16.0
20.0	87454.	-44.7			102.6	4.5
15.0	93883.	-38.0				

** AT LEAST ONE ASSUMED RELATIVE HUMIDITY VALUE WAS USED IN THE INTERPOLATION.

